MINISTRY OF AGRICULTURE AND FISHERIES

Directorate of Economics

Research Paper Series

Micro and Small Enterprises in Central and Northern Mozambique: Results of a 1996 Survey

By

MOA/MSU Research Team

Working Paper No. 27
September 1, 1997

DIRECTORATE OF AGRICULTURAL ECONOMICS

Research Paper Series

Through its Food Security Project, the Directorate of Agricultural Economics of the Ministry of Agriculture and Fisheries maintains two publication series for results of research on food security issues. Publications under the *Flash* series are short (3-4 pages), carefully focused reports designed to provide timely research results on issues of great interest. Publications under the Research Paper series are designed to provide longer, more in-depth treatment of food security issues. The preparation of *Flash* reports and Research Reports, and their discussion with those who design and influence programs and policies in Mozambique, is an important step in the Directorates's overall analysis and planning mission.

Comments and suggestions from interested users on reports under each of these series help identify additional questions for consideration in later data analysis and report writing, and in the design of further research activities. Users of these reports are encouraged to submit comments and inform us of on-going information and analysis needs.

Eduardo Oliveira
National Director
Directorate of Agricultural Economics
Ministry of Agriculture and Fisheries

ACKNOWLEDGEMENTS

The Directorate of Agricultural Economics is undertaking collaborative research in the food security area with Michigan State University Department of Agricultural Economics.

We wish to acknowledge the financial and substantive support of the Ministry of Agriculture and Fisheries of Mozambique and the United States Agency for International Development (USAID) in Maputo to complete food security research in Mozambique. Research support from the Africa Bureau and the Bureau of Research and Development of AID/Washington have also made it possible for Michigan State University researchers to participate in this research, and to help conduct field activities in Mozambique.

David L. Tschirley
Principal MSU Representative
MAP/MSU Food Security Project

Associate Professor
Department of Agricultural Economics,
Michigan State University

MOA/MSU RESEARCH TEAM MEMBERS

Eduardo Oliveira, National Director, Directorate of Ag. Economics
Pedro Arlindo, Research Associate
Rui Manuel dos Santos Benfica, Research Associate
Jose Jaime Jeje, Research Associate
Anabela Mabote, Research Associate
Ana Paula Manuel Santos, Research Associate
Higino Francisco De Marrule, Research Associate
David L. Tschirley, Principal MSU Representative
Maria da Conceição, Assistant
Simão C. Nhane, Assistant
Francisco Morais, Assistant
Michael T. Weber, MSU Analyst
Paul Strasberg, MSU Graduate Research Assistant

Principal Analysts for this Study

Rui Manuel dos Santos Benfica
Donald Mead, Professor of Economics, Michigan State University

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

In the period July - December, 1996, a survey of Micro and Small Enterprises (MSEs) was undertaken in Central and Northern Mozambique. The survey covered enterprises with up to fifty workers that were engaged in non-agricultural activities. It included both urban and rural locations in four provinces (Nampula, Zambezia, Manica and Sofala Provinces), plus one rural district in Tete Province.

The survey results indicate that there are about 840,000 enterprises in those locations. Approximately 1.4 million people work in those enterprises. About one person in seven in those locations is active in an MSE. This is a substantially higher rate of participation in MSEs than in other countries in the region.

In the aggregate, participation rates are about the same in urban and rural areas. There are substantial differences from one province to another, with rural Tete and urban Nampula having more employment relative to their population, while Sofala has a low participation rate in both urban and rural areas. Since most of the population is rural, most of MSE enterprises and most employment is also in rural areas.

Over half the enterprises are engaged in manufacturing activities, while nearly a third are in trading. The manufacturing share is higher in rural areas, while the trading share is higher in cities. The dominant manufacturing activities are brewing of alcoholic beverages (widespread in both urban and rural areas) and the making of products of grass, cane and wood (particularly in rural areas).

The majority of the enterprises are made up of one person working alone. Three quarters of the enterprises are owned and operated by men, a figure that is substantially higher than in neighboring countries. 80% of the labor force is made up of working owners and unpaid workers, many of whom are family members. Paid employees comprise only about 15% of the work force, with the remainder being apprentices. Nearly 80% of the work force has had no more than four years of schooling; about a third have never been to school.

A great many of the enterprises - particularly in rural areas - operate only on a part-time basis. The majority of the businesses operated for six months or less during the year previous to the survey.

Employment in MSEs appears to have grown extremely rapidly in the recent past, increasing by about 65% over the two years before the survey. Only very few enterprises have expanded by taking on additional workers since their start-up, which means that virtually all the employment growth has come from new starts, which have been very numerous.

From an income point of view, less than 20% of the respondents reported that the enterprise contributed more than half the family income. This figure was somewhat higher in urban areas. It appears that about three quarters of the enterprises produced returns per person that were below the minimum wage.

About 30% of the recent starts began their business with less than 100,000 MT of capital; sixty percent had less than 300,000 MT at the start. In terms of the current values of

capital assets, about half the enterprises reported that their assets are currently worth less than 100,000 MT. About 12% of the enterprises have current assets of a value greater than 1 million meticais.

Only about 14% of the enterprises report that they have ever had access to credit. Of those that have received credit, 80% obtained loans from relatives. Credit from formal financial institutions was of negligible importance.

In the same vein, only about 6% of the enterprises had received any form of non-financial assistance. The most frequently received assistance was marketing assistance, channeled primarily to women in rural areas, and technical training and advice, going mostly to men in urban areas. When asked about assistance desired, all urban respondents and half the rural respondents said they wish for such help. The type of assistance most frequently desired was marketing assistance. About 40% of respondents indicated that they would be willing to pay for such assistance.

In sum, the MSE sector in Mozambique is very widespread and is growing very rapidly, but most enterprises operate on a part-time and supplementary basis, providing supplements to household income rather than being the principal source of support. There appears to be both a need for and a desire for credit and non-financial assistance to improve the performance of the sector.

1. Introduction

Mozambique, like many other countries of Africa, faces a serious problem of providing productive employment for its labor force. The disruptions of the economy over the past decades have left many challenges, as the nation seeks to establish a new economic structure with opportunities for all. Demand for income earning opportunities appears to exceed the new job openings in the modern and large-scale segments of the economy. In this situation, many people appear to be turning to self-employment.

There is a considerable interest on the part of many donors and non-governmental organizations in helping to facilitate this process, and particularly to open up more opportunities for productive employment throughout the country. But efforts in this regard are hampered by a severe lack of information concerning the characteristics of existing enterprises, their needs and opportunities.

In seeking to address that need, USAID has funded a survey of Micro and Small Enterprises in Central and Northern Mozambique. The objective of the survey was to improve the knowledge about the structure and performance of MSEs in both rural and urban areas in order to recommend policy measures and direct interventions that promote their growth and impact favorably on their development. This document presents preliminary results from that survey. It is anticipated that it will be followed by other reports exploring different aspects of the survey results in more detail.

1.1. Definitions and Coverage

For the purposes of this report, Micro and Small Enterprises (MSEs) are defined as activities or businesses employing 50 or fewer people and engaged in non-farm, non-livestock income generating activities, i.e., any economic activity other than sale of wage labor, production of crops and livestock or sales of one's own crop or livestock production.

The survey covered both urban and rural areas of four provinces: Nampula, Zambezia, Manica and Sofala. In addition, one rural district of Tete Province (Mutarara district) was covered in the survey.

1.2. Survey Approach

The survey followed a sampling approach, which was different in urban and in rural areas.

Rural Areas

In rural areas, the survey adopted the sample used in the Ministry of Agriculture's Annual Agricultural Sector Household Survey. That survey collects information concerning the demographic characteristics and the agricultural activities of a sample of households. The MSE survey approached all of those same households in all the districts selected in the agricultural sample in those provinces to collect detailed information about any non-agricultural activities in which members of those households are engaged.

In essence, the sampling approach involved a random selection of eight villages in each randomly selected district; based on an enumeration of all households in the village,

eight households were randomly selected for data collection. With 34 districts covered in our survey areas, the rural sample was made up of 34 x 8 x 8 = 2,176 households. Not every household in the sample had a non-farm enterprise; on the other hand, some households had more than one activity.

Urban Areas

In urban areas, the approach was different. In each of the four provinces, the major city and one secondary city were identified. With minor exceptions, each of these cities had been divided up into residential sections (quarteiroes), with approximately equal numbers of households in each. A list was made of all these quarteiroes, and a random selection made, being the number of quarteiroes selected in each city proportional to the existing city quarteiroes. For those quarteiroes selected, each residence or place or business was visited. A knowledgeable person was asked whether any non-farm activity took place at that location. If so, the questionnaire was administered.

In addition to this, the survey also selected five major markets in each of the eight cities under study. In each of these forty markets, a count was made of all enterprises; then a sample of these enterprises was selected for detailed enumeration. The number of enterprises enumerated in any one market was proportional to the total number of establishments found in that market.

More details concerning the survey approach and sampling methods are provided in a separate document, "Summary of Survey Objectives, Sampling Methods and Contents," which is available from the Food Security Project Office either in Maputo or in East Lansing. The weighting procedures used in the analysis of the data are described in more detail in the Annex to this report.

1.3. Survey Logistics

The survey was organized with four teams of enumerators, each one under its own supervisor. Overall supervision was provided by the MSU Food Security Project Office in Maputo, with able assistance from the field office in Nampula.

The field work for the rural survey was undertaken in July-September, 1996. The urban survey work was in December, 1996. Data entry and preliminary cleaning of the data took place in Maputo; the final data cleaning and analysis of results was done in East Lansing, Michigan.

This document provides a preliminary overview of the findings of the survey. It is anticipated that further analysis will be done, building in part on suggestions and reactions received to the information in this report. Additional analyses will be possible once the data have been processed and analyzed for the agricultural activities of the rural households covered by the survey. It is anticipated that this will take place in the second half of 1997.

2. Overall Structure of the MSE Sector

The 1996 Micro and Small Enterprise Baseline Survey in Central and Northern Mozambique estimates that the sector consists of approximately 841,000 non-agricultural income-earning activities, employing an estimated total of about 1,413,000 people. This section presents a detailed description of the structure and general characteristics of the MSE sector in these areas with respect to location, sector, size, age and gender of ownership.

2.1. Locational Breakdown

Rural vs Urban

The regional distribution of enterprises in rural and urban areas and across provinces and the employment figures for those areas based on the 1996 survey are presented in Table 2.1.

Table 2.1: Locational Breakdown of MSEs

Location	Breakdown of MSEs		Employment Breakdown	
	# of MSEs	% of Total	# of Workers	% of Total
Rural Areas	690,856	82.1	1,146,112	81.1
Urban Areas	150,567	17.9	267,166	18.9
Total	841,422	100.0	1,413,278	100.0
By Province	Breakdown of MSEs		Breakdown of Employment	
	# of MSEs	% of Total	# of Workers	% of Total
Rural Areas	690,856	100.0	1,146,112	100.0
Nampula	233,501	33.8	383,453	33.5
Zambezia	291,671	42.2	498,310	43.5
Manica	54,896	7.9	95,404	8.3
Sofala	91,043	13.2	135,566	11.8
Mutarara district (Tete Province)	19,745	2.9	33,379	2.9
Urban Areas	150,567	100.0	267,166	100.0
Nampula	71,268	47.3	128,419	48.1
Zambezia	23,908	15.9	46,238	17.3
Manica	19,291	12.8	37,485	14.0
Sofala	36,100	24.0	55,024	20.6

Source: 1996 MSE Survey data

The higher incidence of MSEs in rural areas relative to urban centers is not surprising. Mozambique is essentially a rural country, with an urban population of only about 33% (World Bank, 1996), just slightly higher than the Sub-saharan Africa average figure of 31%. The average number of workers per enterprise in urban areas (1.77) is

somewhat higher than in their rural counterparts (1.66), which results in a higher share of employment in urban areas than the share of enterprises in those areas. A similar result was found in Kenya (Daniels, Mead and Musinga, 1995).

The provincial breakdown shows a clear predominance of Zambezia in rural areas, while Nampula, where the third and fourth biggest cities of the country are located, has the highest share in urban areas.

Survey results for rural areas, where households are in general primarily involved in agricultural and livestock activities, indicate that overall about 35% of the households covered by this survey have at least one member engaging in a non-farm/non-livestock income earning activity. The average number of MSEs among those households is 1.2. These results vary across locations.

Physical Location

In both rural and urban areas, the majority of businesses operate out of the home (see table 2.2). This has been the common pattern in developing countries worldwide. In both rural and urban areas, markets are the second most common location, followed by itinerant businesses. The relatively high importance of mobile locations in rural areas appears to reflect the fact that the markets for goods and services in those areas are not well developed, which leads to a higher incidence of itinerant trading.

Table 2.2: Enterprise Physical Location

Physical Location	% of Enterprises		
	Rural Areas	Urban Areas	Total
Home	59.4	69.7	61.3
Local Market	16.2	19.1	16.7
Commercial District Shop	0.8	0.0	0.6
Along a Roadside	2.2	2.5	2.2
At a Mobile Location	9.8	5.1	8.9
Home and Local Market	3.3	0.3	2.8
Other Place	8.3	3.3	7.5
Total	100.0	100.0	100.0

Source: 1996 MSE Survey data

The relatively insignificant incidence of businesses operating from "formal" commercial shops is a striking result compared to other countries. However, in Mozambique, historically, the network of formal rural shops has suffered the effects of a civil war; as a result, a new network dominated by home businesses, informal market places and street vending has become predominant.

2.2. Types of Activities

In developing countries in general, the sectoral breakdown of MSEs is quite different between urban and rural areas. Table 2.3. shows the existing sectoral structure of MSEs in the survey areas.

Table 2.3: Sectoral Breakdown of MSEs, by Location

Sector	Industry Grouping	Location		
		Rural Areas	Urban Areas	Total
		% of all enterprises		
Fishing, Gathering, Extraction Activities	Firewood Gathering	1.0 (17.3)	0.5 (28.6)	0.9 (18.0)
	Fishing	4.2 (72.1)	1.1 (57.1)	3.6 (71.2)
	Water Gathering & Mineral Extraction	0.6 (10.6)	0.3 (14.3)	0.6 (10.8)
	Sub-total	5.8 (100.0)	1.9 (100.0)	5.1 (100.0)
Manufacturing	Food/Beverages/Tobacco	30.1 (53.8)	27.9 (59.0)	29.7 (54.6)
	Textile Products	2.8 (5.0)	3.2 (6.7)	2.8 (5.2)
	Wood, Grass & Cane	14.1 (25.1)	3.4 (7.3)	12.2 (22.5)
	Non-Metals	5.2 (9.3)	2.9 (6.2)	4.8 (8.9)
	Metal Products	1.4 (2.6)	2.1 (4.5)	1.6 (2.9)
	Other Manufacturing	2.4 (4.2)	7.7 (16.3)	3.2 (5.9)
	Sub-total	56.0 (100.0)	47.2 (100.0)	54.4 (100.0)
Construction	Construction	2.3 (100.0)	1.9 (100.0)	2.3 (100.0)
Trade, Hotels & Restaurants	Wholesale Trade	2.6 (8.6)	1.6 (4.3)	2.4 (7.7)
	Retail Trade	27.5 (90.7)	34.2 (92.8)	28.7 (91.1)
	Restaurants/Hotels	0.2 (0.7)	1.1 (2.9)	0.4 (1.2)
	Sub-total	30.4 (100.0)	36.9 (100.0)	31.5 (100.0)
Services	Transport/Storage	0.4 (7.9)	1.1 (8.7)	0.6 (8.2)
	Social/Community Services	2.4 (42.6)	1.6 (13.0)	2.3 (33.3)
	Other Services	2.8 (49.5)	9.6 (78.3)	3.9 (58.5)
	Sub-total	5.5 (100.0)	12.2 (100.0)	6.7 (100.0)
Total		100.0	100.0	100.0

Source: 1996 MSE Survey data

About half of all enterprises (54.4% overall, 56.0% in rural and 47.2% in urban areas) are manufacturing activities, defined as those producing or transforming products for sale. The second most important sector overall is trade, which is relatively more important in urban areas. As in other countries, manufacturing has a higher share of MSEs in rural areas, compared to urban locations (Liedholm and Mead, 1995).[1] The remaining enterprises fall into services, gathering, and mining and construction. Among the categories in this last set, services out-weigh gathering in urban areas (12.2% to 1.9%), while in rural areas the opposite is the case, although with a only slight difference (5.5% to 5.8%). Daniels, Mead and Musinga (1995) and Parker (1996) found that, in Kenya and Zambia, trade activities are more prevalent than manufacturing.

To give a better sense of the components of these major categories, Table 2.3 also provides a detailed list of sub-categories within each sector. The percentages in parentheses tell the share of each sub-category within each sector. Studies in other countries report that, within manufacturing, three groups dominate the MSE world: food and beverages, garments and textiles, and wood and grass products. In many countries, these three constitute 75% of all MSE manufacturing enterprises in urban areas, and close to 90% of all such enterprises in rural areas. Mozambique follows this pattern for the first and third of these categories. The number of people engaged in textiles and garment-making is unusually low in Mozambique, and may represent an opportunity for growth. Foods and beverages, usually using agricultural products as inputs, are the dominant sub-category within manufacturing. They represent around 30.0% overall, and in rural areas are the most important single sub-category, which suggests an important potential for growth through linkages with the agricultural sector. Within trade, retail is dominant in both urban and rural areas.

2.3. Size Breakdown of Enterprises

Survey results indicate that the sector is dominated by microenterprises, i.e., those employing 10 or fewer workers. Those with 11-50 workers constituted less than one percent of all enterprises. In fact, less than two percent had more than five workers, and more than a half consist of only one person working alone, i.e., strictly self-employment activities.

[1] In a cross-country study (Botswana, Kenya, Lesotho, Malawi, Swaziland, Zimbabwe and the Dominican Republic), Liedholm and Mead found that in many countries, commerce predominates in urban areas (excepting in Zimbabwe) and also in rural areas (excepting in Lesotho, Swaziland and Zimbabwe).

Table 2.4: Size Breakdown of Enterprises, by Location

# of Workers at time of survey	Location		
	Rural Areas	Urban Areas	Total
	---------- % of all enterprises ----------		
1 Worker	59.0	54.3	58.2
2 Workers	28.5	29.6	28.7
3 - 5 Workers	11.0	14.6	11.6
6 - 10 Workers	1.0	1.0	1.0
11 - 50 Workers	0.5	0.4	0.5
Total	100.0	100.0	100.0

Source: 1996 MSE Survey data

These results are highly consistent with the size profile found in other Sub-saharan African countries. MSE survey results indicate that the percentage of enterprises with 10 or fewer workers is about 98.0% in Swaziland and Zimbabwe; 99.0% in Malawi, Kenya, Lesotho and Zambia; and 97% in Botswana. In these same countries, strictly self-employment activities are dominant. The figure of 58% for single person enterprises found for the survey areas in Mozambique was slightly higher than the 56.5% found in Kenya (Daniels, Mead and Musinga, 1995), but falls below all other countries with MSE surveys, where the figure ranges from 61.0% in Malawi to as high as 79.0% in Lesotho (Liedholm and Mead, 1995).

2.4. Age Distribution of MSEs

The results on enterprise age are presented in Table 2.5. The high percentage of enterprises that are less than two years old, i.e., those born in 1995 and 1996 (44.0%), suggest a rapid rate of expansion of the sector through new enterprises getting started.

Table 2.5: Age Breakdown of Enterprises, by Sector

Age of the Enterprise (Years)	Location		
	Rural Areas	Urban Areas	Total
	---------- % of all enterprises ----------		
Less than 2	42.5	50.6	44.0
2 - 5	22.5	20.3	22.1
6 - 10	10.6	15.4	11.5
11 - 20	11.0	7.7	10.4
21 - 30	9.1	4.1	8.2
31 - 40	2.8	1.0	2.5
More than 40	1.4	0.8	1.2
Total	100.0	100.0	100.0

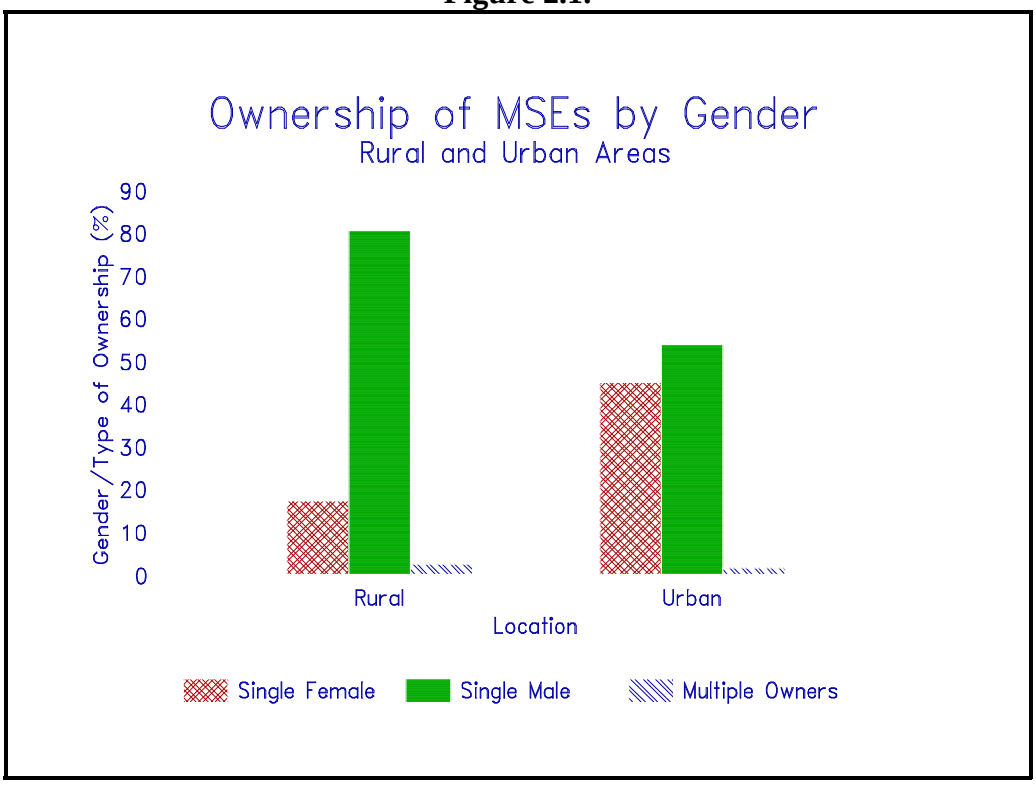
Source: 1996 MSE Survey data

The overall distribution of enterprises by age is similar to that found in other developing countries, but with a higher concentration of new firms and a relatively lower proportion of veteran enterprises, i.e., those that are at least 10 years old. For example, in Kenya, the MSEs with less than two years accounted for 38.3%, a lower proportion than that found in Mozambique, but the proportion of firms with less than 10 years and those more than 10 years old, is quite similar between the two countries. The proportion of firms with less than 10 years is 77.6% in Mozambique, against 80% in Kenya, and the proportion of veteran enterprises is also similar, with a higher proportion found for Mozambique.

2.5. Gender/Type of Ownership of MSEs

Figure 2.1. shows the break down of MSEs in terms of gender in rural and urban areas and for the country as a whole.

Figure 2.1.



Source: 1996 MSE Survey data

Survey results suggest that overall single male owners outnumber single female owners (75.7% to 22.0%). The remaining 2.3% are owned by multiple owners. However, there are significant differences between rural and urban areas (Figure 2.1). While the proportions of male and female owners are not very different in urban areas (53.7% to 44.8%), in rural areas the difference is quite significant (80.4% to 17.1%). This result is contrary to those found in other countries, where women outnumber men in MSEs ownership. It is surprising to note that the sector with the highest proportion of female owners is manufacturing. A significant share of these are engaged in the brewing of alcoholic beverages.

Table 2.6: Gender/Type of Ownership of MSEs

Gender/Type of Ownership	Location		Type of Business					Total
	Rural	Urban	Fishing, Gathering, Extraction	Manufacturing	Construction	Trade/Hotels/ Restaurants	Services	
	% of all enterprises							
Single Female	17.1	44.8	13.6	25.9	0.0	18.7	20.8	22.0
Single Male	80.4	53.7	85.5	71.4	100.0	79.4	76.4	75.7
Multiple Owners	2.5	1.5	0.9	2.7	0.0	1.9	2.8	2.3
Total	100.0	100.0	100.0	100.0	**100.0**	100.0	100.0	100.0

Source: 1996 MSE Survey data

3. Employment in MSEs

3.1. Overall Magnitude and Structure of Employment

As indicated above, the survey results indicate that somewhat over 1.4 million people were engaged in MSE activities. The detailed figures are as follows:

Table 3.1: Overall employment in MSEs

Structure of the Work Force	Numbers of people (% of workers in each category)		
	Rural	Urban	Total
Total people active in MSEs	1,146,112	267,166	1,413,278
Working owners	707,715 (62%)	156,018 (58%)	863,734 (61%)
Unpaid workers	214,745 (19%)	54,807 (21%)	269,554 (19%)
Paid workers	167,286 (15%)	42,280 (16%)	209,566 (15%)
Apprentices	56,364 (5%)	14,586 (5%)	70,950 (5%)
Out of all workers, how many were females?	234,125 (20%)	89,411 (33%)	323,536 (23%)
Out of all workers, how many were less than 15 years of age?	44,096 (4%)	24,825 (9%)	68,922 (5%)

Source: 1996 MSE Survey data.

The figures make clear that about eighty percent of the work force is made up of working owners and unpaid staff, many of whom are family members. Paid workers constitute only about 15% of the total, while apprentices account for only about 5%.

It is helpful to think about this employment in relation to the total population in these areas. Figures in Table 3.2 show that, although 80% of all employment was in rural areas, the employment densities - the numbers of people engaged in MSE activities per capita in the population - are somewhat lower in rural areas. These figures are substantially higher than those obtained in other similar studies in other countries of the region.[2]

[2] Comparable national density figures for other countries are as follows: Botswana, 7.1%; Kenya, 8.3%; Lesotho, 8.4%; Malawi, 9.2%; Swaziland, 11.8%; and Zimbabwe, 12.7%. See Liedholm and Mead, 1995, for full references to these studies.

Table 3.2: MSE Employment, Population, and Employment Densities by strata

Strata	MSE employment	Total population	MSE employment per capita
Rural areas	1,146,111	8,084,528	0.142
Nampula	383,452	2,748,693	0.140
Zambezia	498,310	3,301,046	0.151
Manica	95,404	699,828	0.136
Sofala	135,566	1,225,409	0.111
Mutarara district (Tete Province)	33,379	109,552	0.305
Urban areas	267,166	1,604,469	0.167
Nampula	128,420	592,766	0.217
Zambezia	46,238	296,844	0.156
Manica	37,485	221,598	0.169
Sofala	55,024	493,260	0.112
Whole area studied	1,413,278	9,688,997	0.146

Source: For MSE employment: 1996 MSE Survey data. The 1996 population data are from estimates of DNE for 1995. These figures are then extrapolated to 1996, using average population growth rates over the period 1991-95 for each group taken separately: 4.6% in urban areas, and 5.5% in rural locations.

The differences by province are interesting. They indicate a relatively limited concentration of MSEs in Sofala province, in both urban and rural areas. Nampula has an unusually high concentration in urban areas, while the rural densities are highest in Zambezia and Nampula. The figure for Tete reflects only one district, and may be a statistical aberration.

3.2. Characteristics of the Work Force

The survey provides other indicators concerning the characteristics of the MSE work force. For one thing, as table 3.1 above indicates, only about a quarter of the MSE labor force was made up of females. This is a surprisingly low figure, contrasting sharply with other countries in the region, where women frequently make up well over 50% of the MSE work force.[3] Contrary to findings in other countries, the share of the work force who are women is higher in urban than in rural areas. This feature deserves more careful examination. As in other countries of Africa, only a small share of those working in MSEs are under the age of 15.

The survey collected information on the level of education of enterprise owners (Table 3.3). These figures make clear that the level of education of the MSE work force is very low. Particularly in rural areas, over 80% of the owners had at most primary education. In urban areas, the picture is somewhat better, since over a third of the owners had at least some secondary education.

[3] Comparable figures on the share of MSE workers that are females are as follows: Botswana, 67%; Kenya, 40%; Lesotho, 76%; Malawi, 40%; Swaziland, 78%; and Zimbabwe, 57%. See Liedholm and Mead, 1995.

Table 3.3: Levels of Education of Owner/Operators of MSEs

Level of Schooling	% of Owners (Schooling by Area)		% of Owners (Schooling by Gender)		Total
	Rural	Urban	Female owners	Male owners	
No schooling	34.0	24.2	52.2	26.0	32.2
Primary only (1-4 years)	48.8	38.4	33.1	51.5	47.0
Secondary (5-9 years)	15.5	34.7	14.4	20.2	18.9
Post-secondary (10-12 years)	1.8	2.1	0.3	2.3	1.8
Total	100.0	100.0	100.0	100.0	100

Source: 1996 MSE Survey data.

Among enterprise operators, men had somewhat higher levels of education than women. In particular, there were far more women with no education, while men were more likely to have at least some primary education. The percentage of men with some secondary education was also substantially higher.

In other countries, an important source of know-how for successful MSE entrepreneurs comes from experience gained in working in the same line of business for someone else. Entrepreneurs without such experience are often forced to improvise based on very limited experience, guidance and training. In the questionnaire administered in urban areas, respondents were asked whether they had gained such experience. Nearly a quarter replied affirmatively. In an additional question asked in both rural and urban areas, 6% indicated that they had acquired skills to operate the business during the time of the conflict, perhaps by working for someone else in the same line of business.

3.3. Employment: Full Time or Part Time?

While many people are involved in MSE activities in Mozambique, a significant proportion of these participate only on a part-time basis. The survey provides several indications of this. First, many of the enterprises operate only on a seasonal basis. For example, among those enterprises that had been in existence for at least a year, the number of months that the enterprise was in operation over the previous twelve months was as follows:

Table 3.4: Months of operation of the enterprise

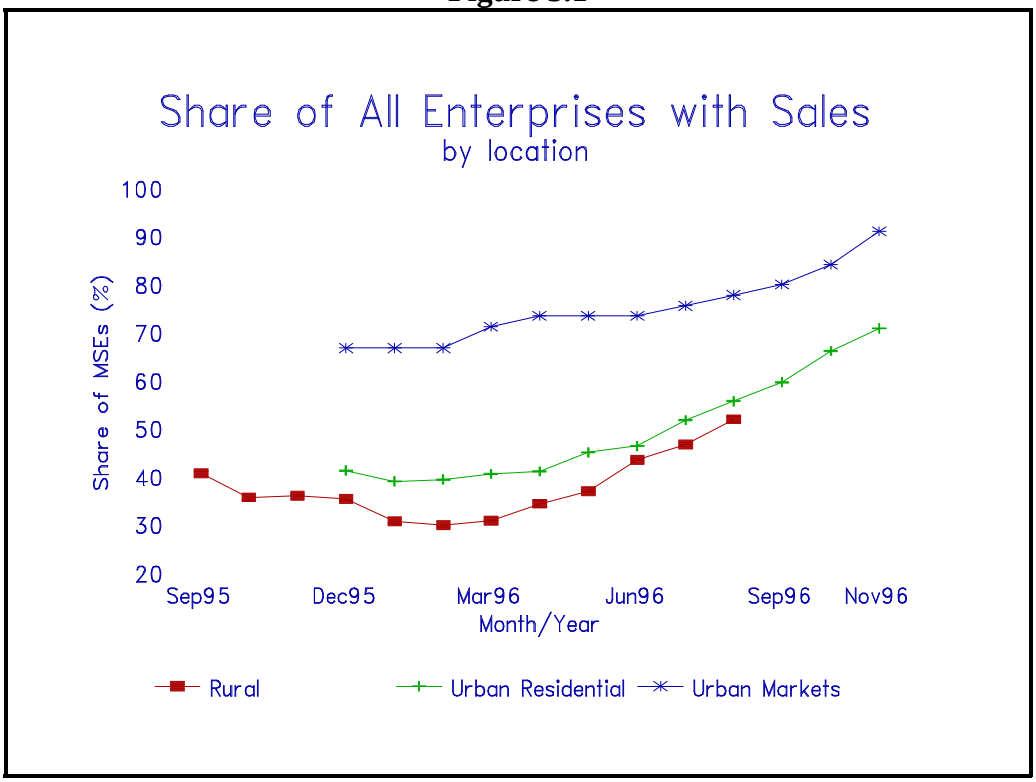
Months of Operation	Percent of all enterprises
Operated six months or less	54.8
Operated 7-11 months	20.5
Operated all 12 months	24.8
Total	100.0

Source: 1996 MSE Survey data.

Furthermore, in the last month that the enterprise operated, 38% reported that they were functioning for less than ten days per month. One way to measure this phenomenon is

to look at the share of all enterprises that reported any sales in a particular month. Figure 3.1 indicates that in all the three strata, there is an upward trend in sales, starting around January-February/96. One possible reason for this trend in that period may be related to the availability of agricultural products used as inputs to MSE activities as well as to the increasing demand for MSE goods and services during the harvest and marketing seasons of the major crops. The downward trend in the line for rural areas during the hungry season (December-January) supports this argument.

Figure 3.1



Source: 1996 MSE Survey data

In an effort to get a measure of the degree to which MSEs are part-time activities, one can look at the number of hours that the enterprise operated during the previous year, and the numbers of workers engaged in these enterprises. If we compare these calculations with a standard of reference for full time employment of 45 hours of work per week over 52 weeks of the year (or 2,340 hours of work per year), it appears that about two thirds of the MSE labor force was working fewer hours than that. On the average, these less-than-full-time workers were engaged in MSE activities for less than 20% of full time (i.e. instead of 2,340 hours per year, they worked an average of only about 390 hours per year).[4]

At the opposite end of the spectrum, about one third of workers were engaged in MSE activities for more than 2,340 hours per year. Some of these appear to have been putting in very long hours; these people who worked more than our standard reference point

[4] These calculations are somewhat imprecise since the questionnaire asked about hours of operation of the enterprise. It also asked about numbers of workers that worked fewer hours than the enterprise itself; but for those that worked less than the enterprise, no information was collected concerning the numbers of hours they worked.

of "full time" worked an average of about 3,400 hours per year, nearly 50% above the standard. In the aggregate, however, the majority of people engaged in MSEs were working far below full time.

3.4. Patterns of Change in Employment

The survey also provides some information concerning patterns of change in employment among the enterprises. Employment increases among MSEs in two different ways: through the establishment of new enterprises; and by the expansion of existing activities. The survey has information on each of these aspects.

The most striking finding is how little growth has taken place through an expansion of existing enterprises, and how rapidly the sector has grown through new starts. In terms of expansions, it is striking that the enterprises currently operating in the survey area had about 1,375,000 people working in them at the time they started, compared to 1,413,000 at the time of the survey. This means that, in the aggregate, these enterprises have expanded by only 2.7% over their whole lifetime. Another way of looking at this is the fact that almost 90% of the enterprises have not changed at all in employment size since start-up. About two percent showed a decline in size since establishment, with the remaining eight percent expanding. Growth in terms of employment was clearly the exception rather than the rule. This pattern is common among MSEs in other countries of the region; but the share of growers was substantially smaller in Mozambique than in neighboring countries.[5] In part, this is a reflection of the fact that the MSE sector is unusually young; many enterprises have only recently started in business, so they have not had much time to grow. But even among older enterprises, employment growth has been quite limited.

Looking in more detail at those that grew, in most cases, the expansion reflected an increasing number of unpaid workers or of apprentices. Only about 2% of the enterprises expanded by taking on additional hired workers.

The pattern of employment growth through new starts is quite different. In fact the number of new activities getting under way has been very substantial. If one starts from the current estimates and "works backwards" to estimate past employment levels and changes, the following picture emerges:

[5] For example, Mead (1994) reports the share of all enterprises that started with four or fewer workers that grew over their lifetime: Botswana, 19.2%; Kenya, 35.0%; Malawi, 22.6%; Swaziland, 19.9%; and Zimbabwe, 18.1%. The comparable figure in Mozambique was 8.6%.

Table 3.5: Patterns of Change in Employment

Year	Employment Levels and Changes
Total employment in MSEs, end of 1994	841,585
+ Employment at start-up in enterprises established during 1995	289,439
- Employment lost through closures of enterprises during 1995	28,014
+ Employment growth through enterprise expansion during 1995	16,694
= Estimated employment at conclusion of 1995	1,119,704
+ Employment at start-up in enterprises established during 1996	263,990
- Employment lost through closures of enterprises during 1996	396[6]
+ Employment growth through enterprise expansion during 1996	29,980
= Estimated Employment at conclusion of 1996	1,413,278

Source: 1996 MSE Survey data.

Two things stand out in these figures. The first is the very rapid overall growth in numbers of people active in MSEs, with the total rising by more than 65%, from about 840,000 to over 1.4 million in just over two years. The second is that over 90% of this expansion came from the employment created through new enterprises getting started; less than 10% came from an expansion of existing enterprises.

This distinction is important since there is reason to believe that employment growth resulting from an expansion of existing enterprises is more likely to reflect a response to an identified business opportunity. As such, it is more likely to reflect a more productive use of resources, to result in higher incomes and in jobs more likely to endure. New start-ups, by contrast, are more likely to reflect pressures to find income for survival. They are more likely to be associated with lower returns and lower enterprise survival rates (see Mead, 1994). It appears that the great majority of the new jobs emerging in MSEs in Mozambique are in the latter category.

Of the 553,429 people finding work in MSEs through new start-ups in 1995 and 1996 (289,439 + 263,990), more than two thirds were in two activities: retail trade; and the brewing of alcoholic beverages. 80% of the new employment in these two types of activities was in rural areas.

In sum, employment has been growing remarkably quickly among MSEs in Mozambique; but the patterns of growth make clear that most of this growth is among rural people engaged in simple trading or brewing activities, often only on a part-time basis.

[6] This figure may underestimate lost of jobs through closures in 1996, due to under-reporting. Thus, these growth figures should be interpreted as an upper bound on the likely MSE growth over this period.

4. Income Earned by the MSE

While it appears that a great many people are engaged in MSE activities in Mozambique, it also appears that, for many of these people, this is a secondary activity, done to supplement their household income rather than as a primary source of support. The survey has considerable information that throws light on this question.

4.1. What Share of the Household Income Comes from the MSE?

One of the questions in the survey asked about the role of the MSE in total household income. As Table 4.1 shows, about a quarter of all urban households with MSEs rely on their micro or small enterprise for more than half of the household's income. In rural areas, this percentage is only about 16%. These figures are even more clear for enterprises owned

Table 4.1: Share of Household Income Supplied by MSE

MSE Share in Total Household Income	% of Enterprises						
	Rural areas			Urban areas			Total
	Male	Female	Total	Male	Female	Total	
Provides all or almost all of household income	8.5	5.9	8.0	12.0	5.4	8.9	8.2
Provides more than half of household income	8.6	5.5	8.2	22.2	11.5	17.2	9.8
Provides about half of household income	17.9	10.5	16.6	14.6	15.5	15.0	16.3
Provides less than half of household income	65.0	78.1	67.1	51.2	67.6	58.9	65.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: 1996 MSE Survey data.

by women; in that case, less than 15% of the enterprises supplied more than half the household's income. For enterprises owned by males, this figure was somewhat higher, but was still below 20%. Only among urban male-owned firms, did more than a third of enterprises supply more than a half of family income.

Table 4.2 shows responses to the question "over the past year, what provided the first and second most important contribution to the owner's income, whether in cash or in kind?" Responses indicate that the MSE was either the first or second most important source of income for about three quarters of the owners, with that figure somewhat higher in urban areas. Over three quarters of the owners in rural areas and more than half of those in urban locations reported that they were also engaged in some way in agricultural production, even if this was not their principal source of income.

Table 4.2: Most Important Sources of Income

Sources of Income Source	Location		
	Rural areas	Urban areas	Total
Most Important Income Source:	---------- % of enterprises ----------		
Agriculture	74.9	43.3	69.4
This MSE	16.7	29.5	18.9
Other sources	8.4	27.2	11.7
Total	100.0	100.0	100.0
Second Most Important Income Source:			
Agriculture	16.5	20.3	17.2
This MSE	57.0	52.8	56.3
Other sources	26.5	26.9	26.5
Total	100.0	100.0	100.0

Source: 1996 Survey Results

The predominance of agriculture as the major source of income in urban areas may result from the fact that most of the areas enumerated in those cities were located in the peri-urban areas and some secondary cities are in fact semi-rural. To better explore this, the results are also presented by city. Table 4.3 indicates that agriculture appears to be more important in secondary cities than in capital cities.[7]

[7] Excepting Nacala, where the proportions look pretty much the same as in Capital Cities. Recall that Nacala is the fourth biggest city of the country with all the typical characteristics of a provincial capital.

Table 4.3: Most Important Sources of Income (Urban Areas), by City

City	Most Important Income Source		
	Agriculture	This MSE	Other
Capital Cities			
Nampula	40.9	28.5	30.6
Quelimane	44.1	26.5	29.4
Chimoio	33.3	50.0	16.7
Beira	41.5	26.8	31.7
Secondary Cities			
Nacala	40.0	34.3	25.7
Mocuba	77.8	11.1	11.1
Manica	57.9	31.6	10.5
Dondo	54.5	27.3	18.2

Source: 1996 Survey Results

4.2. Self-Reported Profits: per Enterprise, and per Worker

In addition to detailed information that explores the levels of sales and associated costs in the enterprise, the respondents were asked to estimate the level of profits (total revenues minus total current expenses) earned by the business in its most recent month of operation (Table 4.4).

Table 4.4: Self-Reported Monthly Profits from the MSE (Meticais)

Percentile	Reported monthly profits
Lowest 10 percent	12,000
Median	75,000
75th percentile	200,000
90th percentile	550,000
95th percentile	1,000,000

Source: 1996 MSE Survey Results

In interpreting these results, one must be aware that they refer to the most recent month of operation. We have seen that most enterprises operated for only some months in the year, so annual figures would be substantially less than twelve times these monthly estimates.

Table 4.5 shows results from dividing these monthly figures by the number of unpaid workers engaged in the enterprise, to convert them from measures of profits per enterprise per month to estimates of income per person per month generated by the enterprise. The calculations included working owners, unpaid workers and apprentices.

Table 4.5: Average Profits per Worker from MSEs During the Last Month of Operation (based on self-reported profits) (Meticais)[1]

Type of Business	Rural areas	Urban areas	Total
Fishing, gathering	312,000 (49)	350,000 (20)	315,000 (69)
Manufacturing	84,000 (492)	433,000 (480)	136,000 (972)
Food & beverages	73,000 (253)	526,085 (296)	148,000 (549)
Wood & grass prod's	96,000 (133)	394,000 (35)	111,000 (168)
Construction	327,000 (17)	500,000 (20)	354,000 (37)
Trade	240,000 (248)	504,000 (441)	296,000 (689)
Transport & storage	135,000 (4)	386,000 (10)	175,000 (14)
Services	61,000 (50)	492,000 (128)	199,000 (178)
Total, all sectors	148,000 (860)	494,000 (1099	209,000 (1,959)

Source: 1996 MSE Survey Results.
[1]Figures in parentheses report the sample size.

These figures are based on reported profits earned in the most recent month when the enterprise was operating, based on the recollection of the respondent. But we also know that many enterprises were operating for only part of the month. To explore the significance of this factor, we have adjusted the figures to express them in terms of "full time equivalents." This could be thought of as an answer to the question: suppose each person generated the reported profits per person per day of operation, but the enterprise in fact was able to operate for 25 days in the month. What would then be the average income or profit per person per month, for the workers in the enterprise (including working owners, unpaid workers and apprentices)? The following table presents the results of this calculation.

Table 4.6: Average Profit per Worker from MSEs, Adjusted to Full Time Equivalent, (based on self-reported profits), in Meticais

Breakdown by Type of Enterprise	Rural areas	Urban areas	Total
Fishing, gathering	569,000 (49)	416,000 (20)	558,000 (69)
Manufacturing	303,000 (482)	731,000 (477)	368,000 (959)
Food & beverages	393,000 (247)	907,000 (293)	480,000 (540)
Wood & grass prod's	167,000 (132)	544,000 (35)	186,000 (167)
Construction	473,000 (16)	938,000 (20)	547,000 (36)
Trade	1,095,000 (246)	602,000 (438)	990,000 (684)
Transport & storage	411,000 (4)	4,024,000 (10)	1,357,000 (14)
Services	222,000 (48)	698,000 (127)	378,000 (175)
Total, all sectors	557,000 (845)	704,000 (1,092)	583,000 (1,937)

Source: 1996 MSE Survey Results

These figures are discussed in more detail in Chapter 8, where they are desegregated and examined relative to the minimum wage in Mozambique.

The questionnaire also collected quite a lot of information concerning income from sales and the costs of doing business. That information was designed to be able to make direct estimates of annual income from the enterprise. These figures are quite detailed, and require more careful review before they can be incorporated into the analysis of the MSE sector in Mozambique. This work is on-going.

5. Credit and Capital

5.1. Enterprise Access to Credit

Although it is not the only pressing need in the MSE sector, finance has a strong potential to boost the sector's development, especially when input and output markets are functional and entrepreneurs have adequate management skills. Tables 5.1. and 5.2. show the proportion of MSEs that received credit and the major sources by different enterprise characteristics.

Table 5.1: Enterprise Access to Credit

Breakdown of MSEs by:	Ever received credit? (% Yes)	
	% Within group	% Across groups
Location		100.0
Rural	13.8	78.8
Urban	16.1	21.2
Gender of Owner		100.0
Female	14.3	23.0
Male	13.6	75.3
Multiple	10.0	1.7
Sector		100.0
Fishing, Gathering, Extraction	21.6	8.2
Manufacturing	10.1	40.5
Construction	12.2	2.0
Trade, Hotels and Restaurants	20.1	46.3
Services	6.2	3.0
Level of Education		100.0
None	11.1	25.9
Primary	12.3	42.4
Secondary	20.6	28.6
Post-Secondary	22.5	3.1
Size		100.0
1 worker	13.1	55.3
2 workers	16.1	34.0
3 - 5 workers	9.2	7.9
6 - 10 workers	18.2	1.4
11 - 50 workers	36.4	1.4
Total	13.6	

Source: 1996 MSE Survey data

Table 5.1 indicates that, on the whole, only 13.6% of MSEs had access to any form of credit. This figure falls above that found for Kenya (10.8%) and is just slightly below the one found for Zambia (14.0%). Although very low in both areas, credit was relatively more frequent in urban than in rural areas (16.1% and 13.1) and quite similar between male and female headed MSEs. In absolute terms, however, since the great majority of MSEs were headed by men (75.7%) and located in rural areas (82.1%), more male-headed (75.3%) and more rural MSEs (78.8%) had access to credit.

Access to credit is much more frequent among trading enterprises and restaurants (20.1%) and fishing and extraction activities (21.6%), compared to other sectors. The higher capital turn-over in trading activities may be the major reason for this finding. Across activities, the results indicate that the great majority of MSEs receiving credit operate in trade and manufacturing. This result is consistent with findings in other countries.

The owner's level of education and the size of the enterprise appear to be key factors in determining MSE's access to credit. A clear positive correlation is found between schooling and the chance of receiving credit. About 89.3% of all MSEs that reported receiving credit employ only one or two workers. Within all enterprises with only one worker, however, only 13.1% received credit. The figure increases to 16.1% among those MSEs employing two workers, 18.2% for 6-10 worker enterprises and 36% for the largest ones.

The survey asked the 13.6% respondents that reported having received some form of credit to report the sources of their credit. Table 5.2. shows that loans from relatives were the major source of credit among all MSEs in both rural and urban areas, followed by moneylenders. Only about two percent of MSEs have been reached with credit from formal institutions. Among those, all were male owned and about two thirds operating in rural areas. Credit from ROSCAS (Rotating Savings and Credit Associations) is surprisingly low (0.2%) and only common among female owned enterprises in urban areas which is not surprising in developing countries.

This structure of share of MSEs receiving credit by source is very similar to that found by Parker (1996) in Zambia, but very different from Kenya (Daniels, Mead and Musinga, 1995), where nearly half of all credit came from ROSCAS, followed by formal credit institutions, and relatives.[8]

[8] The relatively non-functioning formal credit systems, especially in rural areas of Mozambique, and the lack of ROSCAS tradition in central and northern areas of the country make these results quite reasonable.

Table 5.2: Sources of Credit Received, by Location and Gender

Sources of credit received	Among those who received credit: % of MSEs, by source of credit				
	by Location		by Gender/ownership		Total
	Rural	Urban	Female	Male	
Relatives	77.9	22.1	23.2	74.7	100.0
	(80.3)	(86.9)	(83.6)	(80.7)	(81.6)
Moneylender	85.7	14.3	20.0	80.0	100.0
	(5.2)	(3.3)	(4.5)	(5.4)	(5.0)
Formal Credit	66.7	33.3	0.0	100.0	100.0
Institution	(1.7)	(3.3)	(0.0)	(2.2)	(1.9)
ROSCAS (Xitique)	0.0	100.0	100.0	0.0	100.0
	(0.0)	(1.6)	(1.5)	(0.0)	(0.2)
Other Sources	90.9	9.1	21.2	78.8	100.0
	(12.9)	(4.9)	(10.4)	(11.7)	(11.3)
Total	(100)	(100.0)	(100.0)	(100.0)	(100.0)

Source: 1996 MSE Survey data.

Note: The percentages in brackets represent the share of enterprises in each location and within a gender group, that received credit from each source. For example, among all female owned enterprises receiving credit, 83.6% received that credit from relatives. The share of multiple owners that received credit is negligible for all sources, excepting for relatives where it accounts for 2.1% (therefore the category is not shown in the table).

5.2. Start-up Capital Invested in MSEs and its Sources

Start-up Capital

A question of interest to organizations supporting the MSE sector as well as to donors and potential entrepreneurs considering starting their own business is the amount of capital necessary to start a new enterprise. Table 5.3. shows the proportion of MSEs that started with different levels of capital. The results are presented by enterprise age, for all MSEs and with a breakdown by location.

Survey results (Table 5.3.) indicate that a higher proportion of enterprise that started with tiny amounts (less than 100,000 Meticais) are located in rural areas, except for those started in 1976 and before. Regardless of the period the enterprises started operating, most of the MSEs (over 50%) start with very small amounts of capital (less than 300,000 Meticais), without a clear difference between rural and urban firms. This implies that many of the surviving firms and the newly started ones, although starting with very small amounts of capital, provide employment and income on a continuous basis, as compared with the ones starting with higher investments, that are more vulnerable to an uncertain economic and political environment. The proportion of MSEs starting with amounts between 300,000 and 1,000,000 Mts is about 20% for businesses started in 1992 or after (the post-war era), while for the period before that, it was lower. A mix of inflationary pressures and security-induced investments may be behind this finding. A greater share of MSEs in urban areas falls in this second category, when compared to rural areas, for all enterprise age groups. In the upper tail (start-up capital of more than 2,500,000 Mts), urban firms predominate over their rural counterparts.

Table 5.3: Start-up Capital, by Location

Amount of capital	% of MSEs starting with the specified amount, by age of the enterprise														
	Started in 1995/96 (44.0% of all MSEs)			Started 1992-1994 (22.1% of all MSEs)			Started 1987-1991 (11.5% of all MSEs)			Started 1977-1986 (10.4% of all MSEs)			Started in 1976 or before (11.9% of all MSEs)		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Mts <=100,000	31.7	17.5	29.2	35.4	20.5	33.0	40.0	22.2	34.5	40.8	38.9	40.6	42.7	50.0	43.4
Mts 100,001-300,000	28.8	42.5	31.2	35.9	36.4	36.0	37.5	27.8	34.5	27.5	22.2	26.8	33.9	16.7	32.4
Mts 300,001-500,000	15.0	16.3	15.3	7.6	11.4	8.2	5.0	19.4	9.5	7.5	16.7	8.7	4.8	8.3	5.1
Mts 500,001-1,000,000	8.4	8.8	8.5	10.3	11.4	10.5	5.0	11.1	6.9	3.3	11.1	4.3	12.1	16.7	12.5
Mts 1,000,001-1,500,000	9.2	6.3	8.7	4.5	6.8	4.9	8.8	5.6	7.8	13.3	5.6	12.3	6.5	0.0	5.9
Mts 1,500,001-2,000,000	3.4	1.3	3.1	1.3	2.3	1.5	3.8	2.8	3.4	0.0	0.0	0.0	0.0	8.3	0.7
Mts 2,000,000-2,500,000	1.3	1.3	1.3	1.3	0.0	1.1	0.0	2.8	0.9	3.3	0.0	2.9	0.0	0.0	0.0
Mts 2,500,000 +	2.1	6.3	2.8	3.6	11.4	4.9	0.0	8.3	2.6	4.2	5.6	4.3	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: 1996 MSE Survey data

Principal Source of Start-up Capital

Survey results show clearly that most MSEs (77.5%) use non-credit (equity) sources of finance to start their operations. Only about 12% rely on credit sources. Table 5.4. shows that although non-credit sources appear to be more important in urban areas, there is not much difference between rural and urban areas regarding credit sources. When comparing the MSE's sources of start-up capital by gender (Table 5.5), credit sources are slightly more important among women than among men. Daniels, Mead and Musinga (1995) found a similar result in Kenya, which suggests that female owners starting a business have to support the burden of loan repayment and obligations more than men.

Table 5.4: Sources of Funding for Start-up, by Location

Sources of funding for start-up	% of MSEs using the source		
	Rural	Urban	Total
Non-credit sources	**75.8**	**84.3**	**77.5**
Own Savings	69.8	69.2	69.7
Funds offered by others	4.9	13.2	6.5
Receipts from sale of closed business	1.1	1.9	1.3
Credit sources	**12.5**	**12.3**	**12.4**
Funds Lent by others	11.0	11.3	11.0
ROSCAS (Xitique)	0.3	0.0	0.2
Loans from Employers	0.3	0.0	0.3
Borrowing from other Informal Sources	0.6	0.5	0.6
Borrowing from financial institutions	0.3	0.5	0.3
Other Sources	**11.7**	**3.4**	**10.1**

Source: 1996 MSE Survey data

In the aggregate, there are four main sources of funding for new starters: own savings (69.7%), funds lent by others (11.0%), other sources (10%) and funds offered by others (6.5%). Just like in Kenya, Table 5.5 show that funds offered by others are a more common source for female owned MSEs (17.3%) than for their male counterparts (3.6%), and more common in urban areas than in rural areas (Table 5.4.). This result is consistent with the magnitude of the start-up investment (very small amounts) that predominates among MSEs, as presented in Table 5.3. To satisfy their need for very small amounts of money to start a new business, these generally low income people have as an immediate and reliable source their own savings complemented by funds offered by family and friends, and they typically chose these sources over credit that may involve relatively high transaction costs not justified by their scale of operations.

Table 5.5: Sources of Funding for Start-up, by Gender

Sources of funding for start-up	% of MSEs using the source		
	Female	Male	Total
Non-credit Sources	75.5	78.2	77.6
Own Savings	57.4	73.1	69.8
Funds offered by others	17.3	3.6	6.5
Receipts from closed business sold	0.8	1.5	1.3
Credit sources	14.0	11.8	12.4
Funds Lent by others	13.2	10.3	11.0
ROSCAS (Xitique)	0.0	0.3	0.2
Loans from Employers	0.3	0.3	0.3
Borrowing from other Informal Sources	0.5	0.6	0.6
Borrowing from financial institutions	0.0	0.3	0.3
Other Sources	10.5	10.0	10.0

Source: 1996 MSE Survey data

5.3. Current Assets and their Sources of Funding

Enterprise owners were asked to value current enterprise assets, one by one, as if they were to be sold *today*. The items valued range from raw materials, including perishable inputs; furniture/fittings, machinery/equipment/hand tools, to infra-structure and land (if owned by the proprietor) and the inventory of products ready to be sold. Tables 5.6. and 5.7. report the share of MSEs, by different classifications, that valued their total assets in each of the asset value categories.

Table 5.6. shows that the proportion of enterprises in asset value categories below 1,000,000 Mts is higher in rural areas than in urban areas. For total assets valued at more than 1,000,000 Mts, the opposite is the case, i.e., in urban areas, the proportion is systematically higher than in urban areas, especially in the highest investment category. Remember from Table 5.3. that this pattern was systematically observed for start-up investments between 300,000 - 1,000,000 Mts, but not for higher levels. Since the current value of assets in this last category tends to predominate within rural firms and a clear pattern (higher proportion of urban firms over rural firms) is observed for higher levels of current assets values, one may deduce that urban firms use more assets than MSEs in rural areas.

Table 5.6: Value of Current Assets, by location and by gender

Value of current assets	% of Enterprises				Total
	by location		by gender		
	Rural	Urban	Female	Male	
Mts <=100,000	55.9	43.5	69.8	50.3	53.4
Mts 100,001-300,000	19.9	17.9	14.5	19.9	19.5
Mts 300,001-500,000	7.0	6.9	5.0	7.5	7.0
Mts 500,001-1,000,000	7.6	7.2	3.1	8.7	7.6
Mts 1,000,001-1,500,000	2.6	5.5	2.8	3.3	3.2
Mts 1,500,001-2,000,000	1.4	2.9	0.7	1.8	1.7
Mts 2,000,000-2,500,000	1.3	2.3	0.7	1.6	1.5
Mts 2,500,000 +	4.3	13.8	3.3	6.8	6.1
Total	100.0	100.0	100.0	100.0	100.0

Source: 1996 MSE Survey data

A breakdown by gender (Table 5.6.) indicates that low current asset values (less than 100,000 Mts) are more common among female owned MSEs (69.8%) than in the male owned ones (50.3%). Males are about twice as likely as females to appear in the three highest asset categories.

Table 5.7 shows the proportion of enterprises in each asset value category by level of schooling of the owner. The proportion of enterprises that fall into the very low level of asset values (less than 100,000 Mts) is inversely correlated with the level of schooling. If only MSEs owners with schooling levels up to secondary level (98.2% of the sample) are considered, there is a clear positive correlation between the proportion of enterprises that fall into the categories of higher asset values and the level of schooling of their owners.

Table 5.7: Value of Current Assets, by Level of Education

Value of current assets	% of Enterprises by level of education			
	No Schooling	Primary	Secondary	Post-secondary
Mts <=100,000	71.6	48.8	37.0	34.3
Mts 100,001-300,000	15.2	19.7	24.9	39.6
Mts 300,001-500,000	3.0	7.6	11.4	14.1
Mts 500,001-1,000,000	3.9	9.8	8.5	2.8
Mts 1,000,001-1,500,000	1.2	4.5	3.5	2.2
Mts 1,500,001-2,000,000	0.0	2.8	1.8	0.0
Mts 2,000,000-2,500,000	0.4	1.6	2.9	0.9
Mts 2,500,000 +	4.6	5.4	9.9	6.2
Total	100.0	100.0	100.0	100.0

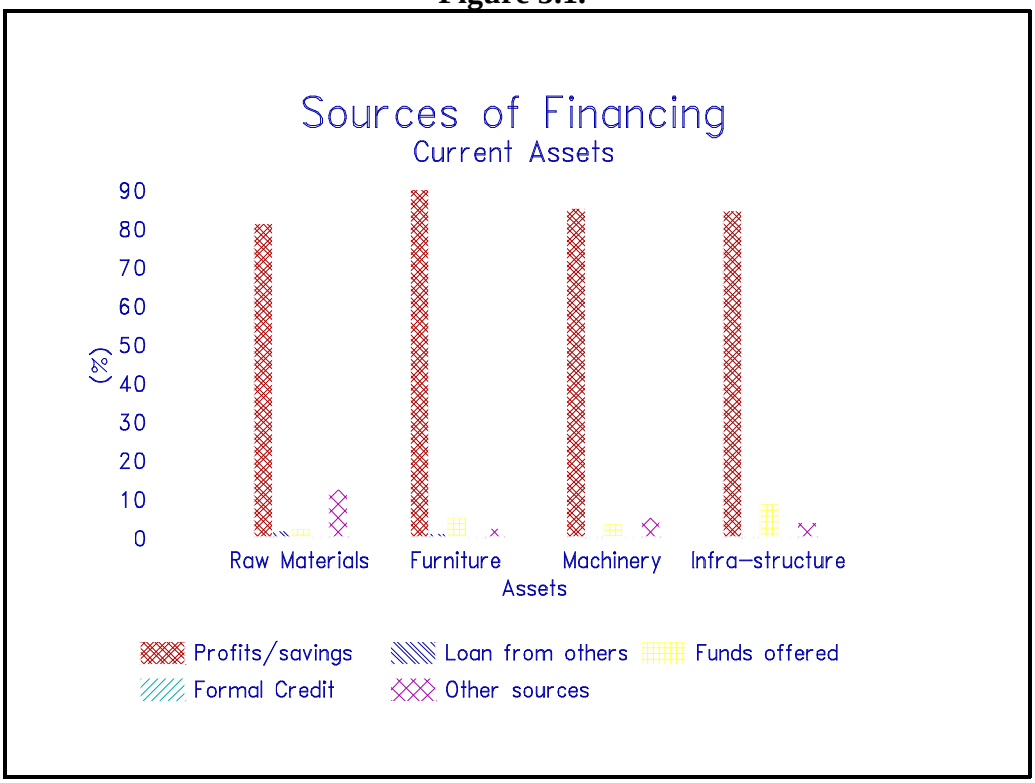
Source: 1996 MSE Survey data

Sources of Funding for Current Assets

For each category of current assets (raw materials, furniture/fittings, machinery/tools and infra-structure), survey respondents were asked to indicate the main source of finance for its purchase. Figure 5.1. shows funding sources for the purchase of enterprise assets. Current assets include all currently-owned items purchased over the life of the enterprise[9].

[9] In many cases they include both the items obtained as start-up investment and further investment items.

Figure 5.1.



Source: 1996 MSE Survey data

As in the case of start-up capital, non-credit sources are more common than credit sources to finance current assets. This suggests that MSEs also depend almost exclusively on this source to finance further investments. The share of MSEs reporting having used credit sources (loans from others or formal credit) ranges from none for infra-structure, 0.1% for machinery, 0.7% for furniture, to 1.5% for raw materials. Given that 13.6% of the firms reported having received credit at one time or another and 12.4% for the start-up, it appears that credit was either for current expenses, or to purchase capital goods that have been later replaced by new assets purchased using equity capital.

6. Non-financial Assistance Received and Desired

This chapter analyses the supply of and demand for non-financial assistance in the survey areas, using the proportion of MSEs targeted with some form of non-financial assistance and the proportion of those desiring it. To help institutions supporting the sector in better targeting their actions, the analysis looks at specific types of non-financial assistance received and desired by MSEs.

6.1. Non-financial Assistance Received

Table 6.1. shows that only 6.3% of all MSEs have been reached with any form of non-financial assistance. In the Kenya 1995 survey, Daniels, Mead and Musinga found that only 7.9% of MSEs received such assistance. Non-financial assistance is somewhat more common among rural MSEs (6.6%) than among their urban counterparts (4.8%). As expected, male owned MSEs had more access to non-financial assistance than female owned firms. In terms of across group comparisons, the results indicate that more rural and male owned MSEs received non-financial assistance. The sectors with higher probability of receiving assistance are: services (10.3%) trade (7.3%), construction (5.4%) and finally fishing, gathering and extraction (3.7%).

MSE owners with higher level of schooling have a higher chance of receiving non-financial assistance. This direct relationship is justified, given that some assistance programs, especially those related to technical training and management, are mostly suitable to more educated people, and education levels represent a serious entry barrier for people with only limited education. On the other hand, even in terms of informal assistance, more educated people may be more likely to seek advice and other forms of assistance from others.

Another result that is consistent with other developing economies is the positive relationship between non-financial assistance and enterprise size. Although no enterprise with six or more workers reported having received assistance, a positive relationship is found among the three categories (making up 98.5% of the sample) that reported having received it, namely 1 worker MSEs (5.2%), 2 workers MSEs (8.0%) and 3-5 workers MSEs (9.2%). Across these three, however, there are significantly more enterprises with only 1 worker, compared with the other groups that are less common in the universe of MSEs itself.

The 6.3% of enterprises that reported receiving assistance, were asked to specify the type of assistance they obtained. Table 6.2. reports the proportions of the number of enterprises that obtained credit from each source, out of this sub-sample.

Table 6.1: Enterprise Access to Non-Financial Assistance

Breakdown of MSEs by	Ever received non-financial assistance? (% Yes)	
	% Within Group	% Across Groups
Location		100.0
Rural	6.6	86.1
Urban	4.8	13.9
Gender of Owner		100.0
Female	3.3	11.8
Male	6.9	83.8
Multiple	11.8	4.4
Sector		100.0
Fishing, Gathering, Extraction	3.7	2.9
Manufacturing	5.4	47.1
Construction	6.1	2.2
Trade, Hotels and Restaurants	7.3	36.8
Services	10.3	11.0
Level of Education		100.0
None	2.4	12.5
Primary	6.8	51.5
Secondary	10.4	31.6
Post-Secondary	15.0	4.4
Size		100.0
1 worker	5.2	47.4
2 workers	8.0	35.8
3 - 5 workers	9.2	16.8
6 - 10 workers	0.0	0.0
11 - 50 workers	0.0	0.0
Total	6.3	

Source: 1996 MSE Survey data

Table 6.2: Types of Non-financial Assistance Received, by Location/Gender

Non-Financial Assistance Received	For those who received assistance: % of MSEs by type of assistance					
	Location		Gender/Ownership			Total
	Rural	Urban	Female	Male	Multiple	
Management Training	10.4	11.1	6.7	11.8	16.7	10.5
Technical Training/Advice	17.4	27.8	0.0	21.8	0.0	18.8
Marketing Assistance	27.8	16.7	33.3	23.6	86.7	26.3
Other Training from Formal Institutions	13.0	5.6	20.0	11.8	0.0	12.0
Informal Advice/Training Assistance	15.7	5.6	6.7	14.5	16.7	14.3
Other Types of Non-Financial Assistance	15.7	33.3	33.3	16.4	0.0	18.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: 1996 MSE Survey data
Note: The percentages in brackets represent the share enterprises in each location and within a gender group, that received assistance from each source.

Overall, marketing assistance (26.3%) and technical training/advice (18.8%) are the most common types of non-financial assistance, followed by other non-specified types of assistance (18.0%) and informal advice/training assistance (14.3%). It is worth noting that while technical training/advice is more common among urban and exclusively male owned MSEs, marketing assistance is more common among rural and female owned MSEs. Informal advice/training assistance is much more common among rural and male owned MSEs. The incidence of management training is not very significant.

Given that Mozambican males are generally more educated than females, these results appear to be consistent with the discussion on access to assistance and schooling levels, and also with the fact that women involved in rural trade are very active in effecting marketing arrangements and useful connections for their businesses. The nature of activities in which urban male are involved is likely to press them to get involved in formal technical training/advice to face market competition. Nevertheless, in absolute terms, the number of MSEs being targeted with non-financial assistance, both formal and informal, is still negligible, taking into account the magnitude of the sector.

6.2. Assistance Desired

To assess potential demand for non-financial assistance in the MSE sector, respondents were asked about their interest in receiving it, and the specification of type of assistance, as well as whether or not they would be willing to pay for it. Tables 6.3. and 6.4. and Figure 6.1. present survey results on these issues, which are discussed in light of the previous findings on enterprise access to non-financial assistance.

Table 6.3: Non-Financial Assistance Desired by MSEs

Breakdown of MSEs by	Non-financial assistance desired (% Yes)	
	% within group	% across groups
Location		100.0
Rural	48.3	79.5
Urban	100.0	20.5
Gender of Owner		100.0
Female	56.1	20.4
Male	54.2	78.0
Multiple	35.4	1.6
Sector		100.0
Fishing, Gathering, Extraction	54.1	5.5
Manufacturing	49.9	51.2
Construction	78.3	3.3
Trade, Hotels and Restaurants	57.2	32.4
Services	64.1	7.6
Level of Education		100.0
None	40.9	24.7
Primary	55.5	48.9
Secondary	69.1	23.1
Post-Secondary	100.0	3.3
Size		100.0
1 worker	55.2	59.1
2 workers	51.0	27.2
3 - 5 workers	53.0	11.5
6 - 10 workers	70.0	1.3
11 - 50 workers	100.0	0.9
Total	53.9	

Source: 1996 MSE Survey data

Results in Table 6.3. indicate that just over 50% of the respondents are wishing to receive some form of non-financial assistance. One hundred percent of the urban MSEs are wishing to receive it, compared to only 48% of their rural counterparts. Remember that the share of rural enterprises that obtained some form of assistance is higher than the urban share that received it.

More educated owners and larger enterprises have a higher propensity to demand non-financial assistance. Female owned MSEs, whose proportion fell below that of male owned in assistance received, are in a slightly higher proportion on the demand side.

Table 6.4. shows the specific type of assistance demanded by the enterprises that reported wishing to receive some type of assistance. It indicates that about 40% of all enterprises demanding non-financial assistance seek it in the area of marketing. The proportion among female owners is even higher (46%). This suggests that the MSE sector has a high demand for marketing assistance, which is an expected result for Mozambique, where both commodity and financial markets exhibit high costs and a poor availability of information. The lack of marketing infra-structure and effective consumer demand, especially in rural areas, along with inflationary pressures, until very recently, make marketing issues very important as part of the MSE's working environment. From the previous section, it was clear that management training has been the type of non-financial assistance least offered to MSEs. However, Table 6.4 indicates that it is the second most important type of non-financial assistance desired, not counting the residual category of "other assistance," which suggests that it is an important type of assistance that MSE need but has not been provided.

In essence, these results suggest the existence of a significant imbalance between the availability of non-financial assistance and what MSEs are demanding, given the difficult environment in which they operate.

Table 6.4: Types of Non-financial Assistance Desired, by Location/Gender

Kind of Non-Financial Assistance Received	% of MSEs desiring type of non-financial assistance					
	Location		Gender/Ownership			Total
	Rural	Urban	Female	Male	Multiple	
Management Training	13.3	12.9	14.9	12.8	15.4	13.3
Technical Training/Advice	10.2	12.1	4.5	12.2	7.7	10.5
Marketing Assistance	40.1	40.6	46.2	38.6	46.2	40.3
Other Training from Formal Institutions	8.2	4.0	2.7	8.7	0.0	7.3
Informal Advice/Training Assistance	10.2	3.1	5.4	9.2	23.1	8.6
Other Types of Non-Financial Assistance	18.0	27.2	26.2	18.6	7.7	20.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: 1996 MSE Survey data

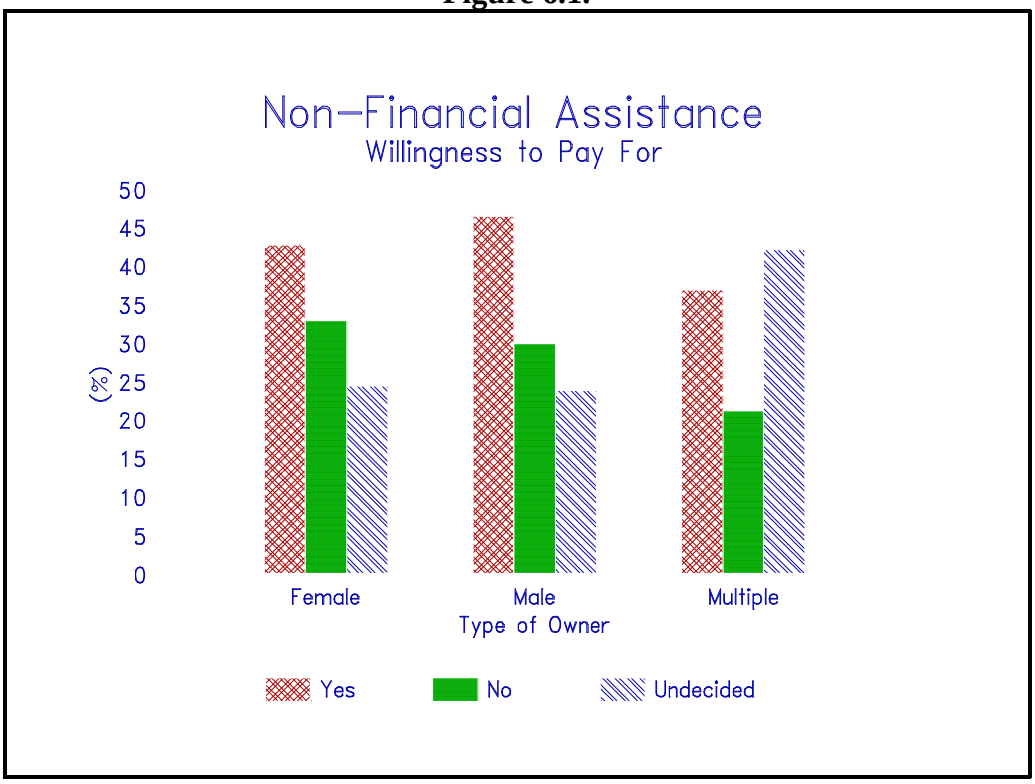
6.3. Willingness to Pay for Non-financial Assistance

Because non-financial assistance, in various forms, means the use of human and other material and financial resources that imply monetary costs, the respondents were asked about their willingness to pay (without specifying the amount) for the type of assistance they declared that they needed.

About 40% of the respondents answered that, if the assistance was available, they would be willing to pay for it, around 35% would not be willing to pay for any assistance, and a quarter of the respondents were undecided. The most common reason some owners were undecided is the lack of any guarantee on the type and the quality of the assistance and its benefits. Some of those who answered "no" had also this same rationale.

Figure 6.1. shows the result by gender. Female and male owners have the same attitude in terms of willingness to pay. Among businesses with multiple owners, however, the share of undecided firms is dominant. This may have to do with the decision making process in this type of firm, where owners need to consult each other before a decision is taken; at the time of the interviews, one of the owners may not have been present.

Figure 6.1.



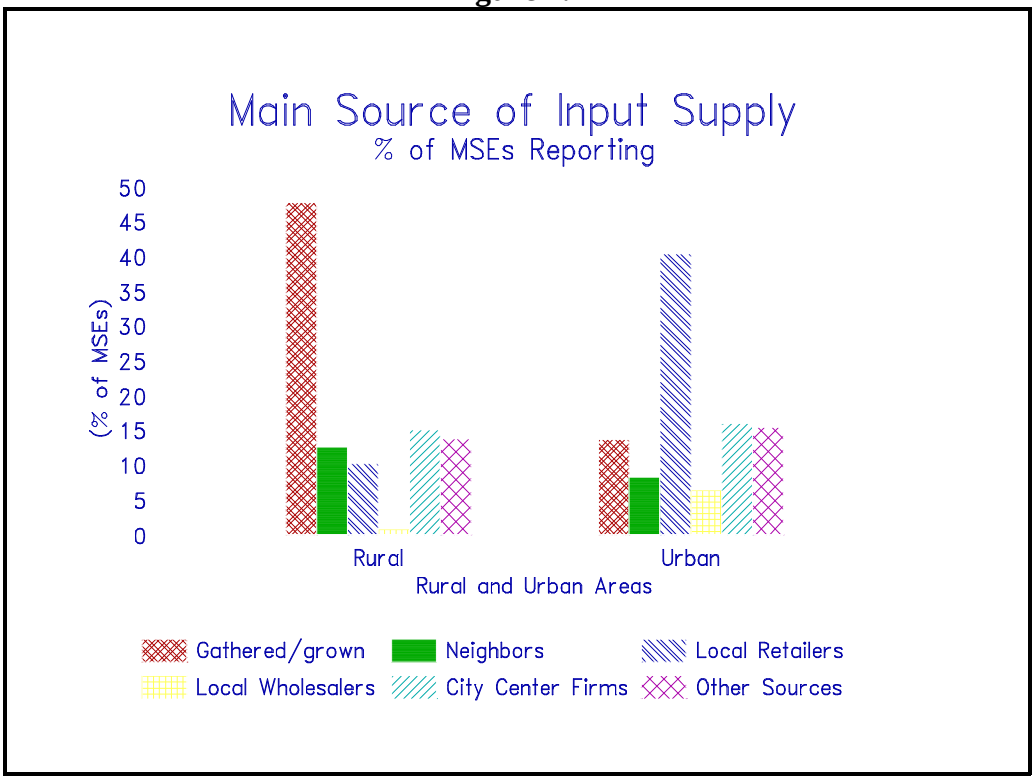
Source: 1996 MSE Survey data

7. Rural-Urban Linkages through Input and Output Markets

The performance of input and output markets within and across different regions and enterprises are key factors for enterprise growth prospects. Analysis of forward and backward linkages between rural/urban manufacturing and trade activities, and other sectors of the economy, particularly agriculture,[10] is an important research issue. At this stage of the analysis, however, these types of relationships are not emphasized, but further analysis may be undertaken using MSE information along with that of the 1996 Agricultural Sector Survey. The objective here is to present a very preliminary indication of the types of input sources and output markets that rural and urban MSEs interact with. A general but still preliminary overall picture of the intra-regional and inter-regional rural/urban linkages can also be drawn through deductions based on the implied marketing linkages.

Figure 7.1 shows the share of enterprises in rural and urban areas using different inputs sources, namely: gathered/grown by the family, purchase from neighbors who gather/grow, local retailers, local wholesalers, city center businesses, and other sources.

Figure 7.1



Source: 1996 MSE Survey data

[10] There has been some divergent arguments about these linkages. For example, Hirschman (1958) contended that linkages between agriculture and other sectors are very weak, while Mellor (1976) and Johnson and Kilby (1975), argued that the linkages between rural industries and agriculture, in particular, are or could be potentially very strong.

In rural areas, about fifty percent of the MSEs had own family gathering/production as the main source of inputs (essentially primary agricultural based inputs). In urban areas local retailers are identified as the most important source (40.4%). The second most important source for both areas are city center firms, including city center wholesalers. As expected, local wholesalers are relatively more frequent as suppliers for urban firms than for their rural counterparts. Finally, supply of goods and services by neighbors is more common among rural firms, and the incidence of local wholesaling as input suppliers in rural areas is negligible.

This result is consistent with the structure of the MSE sector described in chapter 2. Recall that in rural areas most manufacturing activities are foods/beverages and wood/grass/cane, based on agricultural products, that are locally supplied through own sources (family and other local residents). Given the weakness of local markets, especially wholesaling, activities that use processed products as inputs in rural areas find city center firms as an alternative. High costs of marketing mean that local retailers in rural areas, must charge substantially higher prices than city wholesalers. Table 7.1 illustrates these by presenting input supply sources by type of activity. As expected gathering activities and manufacturing businesses (especially foods and beverages) using agricultural inputs are mostly supplied by local sources. The most significant urban-rural linkages appear to be in retail trading (32.6% of the firms are supplied by urban sources), and textiles apparel and footwear (41.3% of the firms getting inputs from urban sources).

No inference can be drawn, using this limited information, about the extent to which urban firms demand from rural firms. However, the dynamics of the agricultural marketing system suggest that most of the trading, and some manufacturing enterprises, operating in urban areas demand primary products produced in rural areas, either purchasing them directly or using intermediaries.[11]

[11] For details on the structure and performance of food markets, see MAP/MSU Food Security Project Working papers No.9, No.10, No.12 and No.19.

Table 7.1: Main Sources of Input Supply by Sector, Rural Areas

Sector	% of Rural Enterprises by Input Supply Source, by Sector				
	Gathered/ grown	Neighbors	Local (Rural) Firms[1]	City Center Firms[1]	Other Sources
Gathering of Wood, etc (16)	75.0	0.0	0.0	0.0	25.0
Fishing (72)	40.3	5.6	11.1	11.1	31.9
Mineral Extraction (8)	50.0	0.0	12.5	0.0	37.5
Food and Beverages (535)	69.9	18.1	5.2	5.0	1.7
Textiles Wearing Apparel and Footwear (46)	8.7	10.9	30.4	41.3	8.7
Wood/Wood Products (250)	69.6	5.2	2.4	8.0	14.8
Non-metallic minerals (86)	80.2	1.2	0.0	0.0	18.6
Metal Products (27)	29.6	29.6	4.4	14.6	18.5
Manufacturing, nec (42)	66.7	0.0	11.9	14.3	7.1
Construction (41)	36.6	0.0	7.3	17.1	39.0
Wholesale Trade (45)	20.0	51.1	11.1	8.9	8.9
Retail Trade (484)	13.8	13.0	20.2	32.6	20.2
Transport and Storage (8)	37.5	0.0	0.0	12.5	50.0
Social and Community Services (41)	63.4	9.8	14.6	0.0	12.2
Other Services (41)	24.4	0.0	36.5	19.5	19.5
Total (1,749)	47.7	12.5	11.0	15.1	13.7

Source: 1996 MSE Survey data.
[1] Includes retail and wholesale input suppliers.

Regarding output markets, survey results indicate that about ninety percent of the enterprises report that the output is sold directly to final consumers, both local residents (77.1%) and others consumers (12.9%). The incidence of MSEs that sell to traders is surprisingly low (4.1%). Among those MSEs, 2.2% report that they sell the product at the traders' work place, and 1.9% have the traders buying at the MSE work place. The share of MSEs that supply their output to government institutions is negligible.

Although it maybe difficult to draw a picture clear enough to understand input and output market linkages, these results suggest some dynamic elements in the rural and urban linkages through MSE activities.

8. Problems

Enterprise owners were asked two sets of questions concerning problems they faced. In the first instance, the question was asked in general terms: what are the two most serious business problems you faced over the last year? This was followed by a set of questions focusing specifically on problems resulting from governmental controls or regulations. These two are discussed in turn.

8.1 General Problems

The most serious problems reported by the entrepreneur are reported in Table 8.1. These figures follow a familiar pattern from similar surveys in other countries. Issues of finance come at the top of the list, and are particularly important in urban areas. Financing questions have been discussed in more detail in section 5; as we noted there, very few MSEs in either urban or rural areas have had access to any credit other than loans from family and friends.

Table 8.1: Most Serious Problem Faced by Business

Problems	% of MSEs Reporting the Problems		
	Rural areas	Urban areas	Total
Finance	27.8	34.9	29.2
Markets for goods/services sold	22.4	29.1	23.6
Input supply/prices/quality	19.3	17.1	18.9
Transport availability/road quality/traffic congestion	8.9	2.4	7.7
Availability/prices/maintenance of Tools/machinery/spares	4.2	3.4	4.0
Government regulations	1.4	1.0	1.3
Shop space/rental	1.1	1.4	1.2
All other	14.9	10.7	14.1
Total	100.0	100.0	100.0

Source: 1996 MSE Survey data.

Financing issues are followed by problems relating to markets, both on the side of products and services sold and in terms of access to inputs. On the output side, this may reflect a heavy concentration of enterprises in a limited range of activities which are in danger of being saturated, and which are growing only relatively slowly. Issues of input markets are particularly severe in rural areas, and reflect the unreliable distribution system for purchased inputs.

A number of firms report transport to be their most serious problem, particularly for enterprises in rural areas. It appears that there are major problems with the whole rural

distribution system, including transport as well as input and output marketing systems. This is not surprising for a country just recovering from an extended period of conflict, when the rural areas were extensively disrupted.

Disaggregation of problems by gender revealed few differences. Finance, output markets and access to inputs are equally important for enterprises operated by men and women. More differences appear when the enterprises are desegregated by sector of economic activity. The results are provided in table 8.2. below. Only the two major sectors - manufacturing and trading - are shown; together, these account for 86% of all enterprises with data relating to this question.

Table 8.2: Most Serious Problem Faced by Business by Economic Activity

	% of MSEs Reporting the Problem by Sector		
Problems	Manufacturing	Trading	Total
Finance	22.0	43.1	29.2
Markets for output	23.5	16.1	23.6
Inputs	29.9	6.8	18.9
Transport	3.0	17.6	7.7
Tools/machinery	4.4	1.0	4.0
Government regulations	1.2	1.4	1.3
Shop space/rental	0.5	1.5	1.2
All other	15.5	12.5	14.1
Total	100.0	100.0	100.0

Source: 1996 MSE Survey data.

These figures make clear that finance is an issue particularly for trading enterprises. Market problems, both for products and for inputs, are much more widespread for manufacturers. Transport problems were felt much more severely by traders, compared to manufacturers. This may reflect the fact that small manufacturers are more likely to rely on local sources of supply and local markets, while traders must obtain the products they sell from greater distances, so a weak transport system imposes more of a burden on them.

Respondents were also asked about their second most serious problem. It is significant that less than half the respondents listed any problem beyond the first. Those that did list a second problem cited markets for output (26.9%), followed by finance (22.1%) and inputs (14.6%). These responses reinforce the conclusion that finance and input/output markets are the key problems facing these firms.

8.2. Issues of Government Regulations

In discussions of policies for the promotion of MSEs, there is considerable interest in the ways in which government rules and regulations may constrain the establishment and growth of

these enterprises. A two-step set of questions was included in the survey to explore the degree to which entrepreneurs find themselves to be constrained by government regulations. In the first set of questions, reported on in table 8.1 above, less than 2% of all entrepreneurs mentioned these regulations as being their principal constraint. This was followed, then, by a second question asking explicitly whether government regulations were a problem for the enterprise. It is significant that only 4% of the respondents answered affirmatively. These are approximately evenly distributed among rural and urban respondents. Among those that did report a problem with the administration, the most frequent issue was one of obtaining a license. This problem was particularly widespread in rural areas (45.9% of those reporting a problem, compared to only 11.1% of those in urban areas). In urban areas, the most frequent issue was one of government harassment; but the numbers involved were very small (only nine cases in the whole sample).

It is sometimes argued that the smallest enterprises are unaffected by government regulations, since they fall below the screen of government officials and are generally untouched by these rules; but larger enterprises are more likely to be bothered by them. But if one looks only at enterprises in our sample with five or more workers, this group was even less likely to report problems with government rules and regulations. These data give no support to the idea that larger enterprises are more constrained by such rules.

9. Performance Indicators

The survey has enabled us to describe a number of different features of MSEs in Mozambique. In this chapter we pull together some of the characteristics that might describe successful enterprises. The approach here is preliminary, and provides a basis for further analysis exploring determinants and correlates of these characteristics.

We have defined five performance indicators, of which two have to do with employment and three with income. These are as follows:

Performance Indicator 1: Employment has grown since the enterprise was established. Expansion in an enterprise is both a possible sign that the enterprise is doing well and an indicator that it is more likely to survive.[12]

Performance Indicator 2: Engages at least one paid worker. Enterprises that use paid labor often have a more commercial orientation to the management of their enterprise.

Performance Indicator 3: Reported profits per person per month (i.e. per worker in the enterprise, excluding paid workers) exceeded the minimum wage. This and Performance Indicators 4 and 5 are based on the entrepreneur's own estimate of profits earned in the most recent month of operation.[13]

Performance Indicator 4: Reported profits per person per month, adjusted to a full time equivalent (FTE) basis, exceeded the minimum wage. The adjustment to FTE was done by multiplying the actual return by (25/number of days the enterprise worked in the month).

Performance Indicator 5: Similar to Performance Indicator 3, except that the standard of comparison is twice the minimum wage.

Tables (9.1 and 9.2 report on the numbers of enterprises that meet these various standards. The results are presented separately for rural and urban areas, and are broken down by industrial group. Each industrial category which had at least ten observations in our sample, at an ISIC4[14] level of detail, is included in the table.

---

[12] In McPherson's econometric analysis of determinants of MSE survival, the fact of having grown in the past was positively correlated with the probability of survival. See McPherson, 1992.

[13] For rural areas, the minimum wage used as a basis for comparison was the agricultural wage: 209,960 MT per month. For urban areas, the basis for comparison was the minimum wage in other sectors (industrial and commercial): 311,794 MT per month.

[14] The description of the economic activity was very detailed in the data collection process, i.e., a classification that captures type of product, sector of activity, and level of marketing transaction. For analytical proposes, however, we used the International Standard Industrial Classifications (ISIC) of All Economic Activities, and worked with 4, 2, and 1 digit ISICs depending on the level of detail needed. ISIC4 is the most disaggregated level of the ISICs.

Table 9.1: Performance Indicators for MSEs: Rural Areas (% of all enterprises in the sector that met the criterion of the performance indicator)

Enterprise Type (Sample Size)	% of MSEs Meeting Performance Standards by Sector (ISIC4)				
	PI-1 (employment grew)	PI-2 (had paid workers)	PI-3 (actual income > minimum wage)	PI-4 (FTE income > minimum wage)	PI-5 (actual income > 2x minimum wage)
Gathering of Wood, etc. (18)	39	0	0	39	0
Fishing (75)	19	45	35	43	15
Mining (11)	0	0	18	45	18
Wine/Alcoholic Beverages (523)	2	3	6	38	2
Wearing Apparel (36)	17	3	3	14	3
Grass and Cane Products (142)	4	1	2	13	0
Wood Products n.e.c. (96)	15	4	18	33	10
Wood furniture (13)	0	0	46	46	15
Pottery (79)	6	6	1	28	0
Non-metallic Minerals (15)	20	7	27	40	27
Metal Products n.e.c. (26)	8	4	31	54	0
Manufacturing n.e.c. (41)	7	5	5	24	0
Construction, incl. Tiling (42)	0	17	19	50	12
Wholesale Trade(47)	6	2	32	49	19
Retail Trade (495)	8	11	26	38	14
Medical Services (43)	12	12	5	30	2
Repair, Footwear (10)	0	0	0	30	0
Repair, Other (17)	0	0	0	29	0
Services, Other (16)	6	6	19	19	0
Total (1,799)	8.1	8.4	15.0	34.8	6.8

Source: 1996 MSE Survey
n.e.c. stands for "not elsewhere classified".
Notes: Any sector which, at an ISIC4 level of detail, had ten or more cases in the survey is shown separately. The total includes the smaller sectors. For definitions of the performance indicators, see text. The numbers in parentheses tell the total number of enterprises in that category in the survey.

There are several things to notice about these tables. Starting with the totals and with the employment aspects (PI-1 and PI-2), we notice that only about 8% of the rural enterprises met these criteria. In urban areas, somewhat more had paid workers, but still only about 13% had any paid labor. In terms of the income measures (PI-3 - PI-5), while only about 15% of the rural enterprises generated actual incomes equal to the minimum wage, the share of enterprises that

met that criterion based on full time equivalents was more than twice as high. This makes clear that one of the main reasons why rural enterprises yield such low returns is that they are such intermittent, part-time activities. If people were to practice these activities on a full-time basis, about a third of them would generate incomes that match the rural minimum wage. Our data do not permit us to determine whether this intermittent work pattern is due to lack of demand or other factors.

The contrast with urban areas is interesting. The share of enterprises that meet the criterion of PI-4 - income based on full time equivalents - is virtually the same in rural and urban areas. But because the urban activities appear to be substantially less seasonal than their rural counterparts, the actual incomes appear to perform much better.[15] The last columns indicate that relatively few enterprises currently meet the higher standard of more than twice the minimum wage, although the share was nearly double in urban areas as compared to rural areas.

Table 9.2: Performance Indicators for MSEs: Urban Areas (% of all enterprises in the sector that met the criterion of the performance indicator)

Enterprise Type (Sample Size)	% of MSEs Meeting Performance Standards by Sector (ISIC4)				
	PI-1 (employment grew)	PI-2 (had paid workers)	PI-3 (actual income > minimum wage)	PI-4 (FTE income > minimum wage)	PI-5 (actual income > 2x minimum wage)
Manufacture of Bakery Products (18)	17	28	50	50	33
Wine/alcoholic beverages (73)	4	3	8	38	1
Wood Products n.e.c. (10)	10	10	30	50	20
Manufacturing n.e.c. (28)	11		11	21	4
Retail Trade (129)	7	9	24	26	14
Services, Other (15)	7	13	27	33	7
Total (377)	9.5	13.0	25.2	35.8	13.8

Source: 1996 MSE Survey

In terms of the sectoral breakdowns, we will confine our comments to some of the largest sectors. In rural areas, fishing appears to have a relatively good performance, with comparatively little seasonality and income figures which are not as depressed as in several other sectors. The pervasive brewing activity appears to generate only very low returns, particularly since people engage in it only sporadically. Even if pursued on a full time basis, less than 40% would be earning a return that would match the very low agricultural minimum wage. Although

[15] It is worth repeating that the standard with which we compared the urban enterprises was in terms of the industrial (or "other") minimum wage, which is nearly 50% higher than the agricultural minimum wage, which we used as a basis for comparison in rural areas.

that is not an impressive figure, it is still above average for all rural MSEs. Grass and cane products are even more unimpressive in terms of their contribution to income.

After alcoholic beverages, the largest industrial grouping is retail trading, a category which is significant in both rural and urban areas. It is interesting to note that, by the undemanding standards of comparisons with other MSEs, retailers appear to be doing relatively less poorly than most other activities. Reported returns based on actual hours worked are approximately equally good in rural and urban areas, while in FTE terms the rural traders substantially outperform their urban counterparts. In a country where the trading system has suffered during the time of the conflict and where markets are still isolated and fragmented, competent traders - and particularly rural traders - appear to be performing relatively well.

Bibliography

Daniels, Lisa, Donald C. Mead and M. Musinga (1995). "Employment and Income in Micro and Small Enterprises in Kenya: Results of a 1995 Survey." DAI: GEMINI Technical Report No. 92.

Hirshman, A.E. (1958). "The Strategy of Economic Development." New haven: Yale University Press.

Johnston, Bruce F. and Peter Kilby (1975). "Agriculture and Structural Transformation: Economic Strategies in Late Developing Countries." London: Oxford University Press.

Liedholm, Carl and Donald C. Mead (1995). "GEMINI Action Research Program 1: Final Report: The Dynamic Role of Micro and Small Enterprises in the Development Process." DAI: the GEMINI Project.

McPherson, Michael A. (1992). Growth and Survival of Small Southern African Firms. PhD Dissertation, Dept. of Economics, Michigan State University.

Mead, Donald C. (1994). "The Contribution of Small Enterprises to Employment Growth in Southern and Eastern Africa," World Development, Vol. 22, No. 12.

Mellor, John W. (1976). "The New Economics of Growth: A Strategy for India and the Developing World." Ithaca: Cornell University Press.

Parker, Joan (1996). "Micro and Small-Scale Enterprises in Zambia: Results of the 1996 Nationwide Survey." DAI: mimeo.

United Nations (1968). "International Standard Industrial Classification for All Economic Activities". New York

World Bank (1996). "World Development Report". Washington D.C.

Annex: Weighting of Survey Results

In both rural and urban areas, the survey was based on a sample of households or enterprises. To make these results representative of the whole universe from which the samples were drawn, the individual observations in the sample need to be weighted, to reflect the proportion of the universe included in the sample.

In both rural and urban areas, it is helpful to think of the weighting process in terms of two stages: proportionality weights, and expansion weights. Proportionality weights reflect the fact that, in some cases, the sampling fraction was higher for some components of a stratum than for other components of that stratum. Once the proportionality weights had been applied to these different components, then a uniform expansion weight could be used for all cases in a particular stratum. This procedure worked differently in rural and urban areas.

In rural areas, the MSE survey used the same sample as that used in the agricultural survey. The procedure there involved a first-stage random selection of districts across all provinces, where the probability of selection of a district was proportional to the population of the district. In each of the selected districts, eight villages were selected at random, with the probability of selection of a particular village being proportional to the number of households in that village. Then in each village selected, eight households were selected at random for interviewing. In principle, this means that the probability of selection of any particular village is proportional to the population of that village; no proportionality weighting needs to be applied, at the level of the villages; at the level of villages, this is a "self-weighting sample". But some villages have substantially more households than others; and once a village is selected, the probability of selection of a particular household would be different, depending on the number of households in the village. In the rural areas, then, proportionality weights should reflect the relative numbers of households in the villages selected.

In practice, our examination of the available data on numbers of households in the sample villages led us to question the validity of these numbers. The reported sizes of villages in the sample ranged from 31 households up to 8,352 households, with an average size of 671 households. Of the 255 villages in which the survey was administered, 20 were reported to have more than 2,000 households, while an additional 23 villages had more than 1,000 households. These figures seem implausibly high. Furthermore, in those districts with relatively large villages, the average numbers of people per household were implausibly low, ranging to as few as 1.41 persons per households. In other districts with reported smaller village size, by contrast, the average number of persons per household was as high as 48.72. These numbers cannot be believed. In the face of these difficulties, the proportionality weights in rural areas were calculated at a district level rather than at a village level, since these were felt to be more accurate. This is not strictly correct from a statistical point of view, since enterprises in different villages within the same district were all given the same weight, in spite of the fact that their probability of selection differed depending on the size of the village; yet it seems to be the best alternative, given the data that are available.

With regard to the expansion weights in rural areas, the total rural population in these 4 provinces plus 1 district in 1995 has been estimated by DNE as follows:

Nampula	2,605,396
Zambezia	3,128,954
Mutarara District (Tete Province)	103,841
Manica	663,344
Sofala	1,161,525
Total	7,663,060

Over the period 1991-95, DNE estimated that the population of these areas grew by an average of 5.5% p.a. Using this rate to estimate the figure for 1996, the total population of this area in 1996 would be estimated at 8,084,528 persons. At an estimated average of 5.2 persons per household (a figure derived from the demographic results from the agricultural survey), this population would represent 1,554,717 households.

The MSE survey covered 8 households in a total of 272 villages, a total of 2,176 households. The expansion factor then is 1,554,717/2,176 = 714.48.

The overall weight for the village would then be the product of the proportional weight times the expansion factor.

Turning to the urban areas, for the residential portion of the urban survey, the eight cities and larger towns to be covered by the survey (two in each of the four provinces - Tete was not covered in the urban survey) were each divided into quarteiroes. In the eight cities, there are 3,285 quarteiroes. These were assumed to have an approximately equal population per quarteirao. The number of quarteiroes to be surveyed in each city was thus the share of all quarteiroes that are in that city, times the total number of quarteiroes to be covered by the survey (60). This means that, in principle, each household in these eight cities has an equal chance of being covered by the survey. This means that proportionality weighting within the urban areas is not necessary (this is again a "self-weighting sample").

Expansion factors for urban households are determined in ways similar to that above for rural areas. For the eight cities, total population for 1995 has been estimated as follows:

Nampula	348,917
Nacala	217,781
Quelimane	183,493
Mocuba	100,297
Chimoio	137,976
Manica	73,877
Beira	399,725
Dondo	71,843
Total	1,533,909

Over the period 1991-95, the population of these eight cities was estimated to have grown by an average of 4.6% per year. Using this growth rate, the 1996 population is estimated

at 1,604,469 persons. Using the same assumption of an average of 5.2 persons per households, this would imply a total of 308,552 households in these eight cities.

The total number of households visited in our urban survey and with people present to provide information was 2,339. This implies an expansion factor in urban areas of 308,552 / 2,339 = 131.92.

In addition to the household-based survey, the questionnaire was also administered in market areas in these same eight cities. In this case, the survey work started with a complete listing of all MSE operators in these markets (five markets were covered in each of eight cities, forty markets in all). In these forty markets, 22,209 operators were counted. With the resources available, it was possible to enumerate 273 enterprises. The numbers to be enumerated in any one market was proportional to the total number of operators in that market. This means that each operator had an equal chance of being selected, so no proportionality weights are needed. The expansion factor for these markets was 22,209 / 273 = 81.35.

A few things to notice about these procedures. First, in this process, we leave out completely three smaller cities in the four provinces under study: I. de Mozambique, Angoche, and Gurue. We have no information about them; the final estimates will simply be for the four provinces excluding those three cities, plus one district of Tete.

Second, the estimates for urban markets are simply added to those for urban areas based on households. The survey procedures were set up in such a way that this will not result in double counting.

A final thing to notice is that the expansion factor in rural areas is much higher than that in urban areas. This reflects the fact that the proportion of the universe sampled was substantially higher in urban areas, reflecting the presumption that there is more heterogeneity among urban enterprises, so they need to be more intensively sampled.

NDAE Working Papers

1. Informing The Process of Agricultural Market Reform in Mozambique: A Progress Report, October 1990

2. A Pilot Agricultural Market Information and Analysis System in Mozambique: Concepts and Methods.

3. Inquérito ao Sector Familiar da Província de Nampula: Obseravações Metodológicas, 9 de Novembro de 1991

3E. A Socio-Economic Survey of the Smallholder Sector in The Province of Nampula: Research Methods (**translated from Portuguese**), January 1992

4. Inquérito ao Sector Familiar da Província de Nampula: Comercialização Agrícola, 30 de Janeiro de 1992

4E. A Socio-Economic Survey in The Province of Nampula: Agricultural Marketing in the Smallholder Sector (**translated from Portuguese**), January 1992

5. Inquérito ao Sector Familiar da Província de Nampula: O Algodão na Economia Camponesa, 9 de Novembro de 1991

5E. A Socio-Economic Survey in The Province of Nampula: Cotton in the Smallholder Economy (**translated from Portuguese**), January 1992

6. The Determinants of Household Income and Consumption in Rural Nampula Province: Implications for Food Security and Agricultural Policy Reform, August 1992

6P. Determinantes do Rendimento e Consumo Familiar nas Zonas Rurais da Província de Nampula: Implicações para a Segurança Alimentar e as Reformas de Política Agrária (**Traduzido do Inglés**), 24 de Fevereiro de 1993

7. A Socio-Economic Survey In The Province of Nampula: Smallholder Land Access and Utilization (**Forthcoming**)

8. Dengo, Maria Nita, "Household Expenditure Behavior and Consumptio Growth Linkages in Rural Nampula Province, Mozambique", M.Sc. Thesis, Dept. of Agricultural Economics, Michigan State University (**Reprint**), December 18 1992

9. The Maputo Market Study: Research Methods, March 8 1993

9P. O Estudo do Mercado de Maputo: Observações Metodólogicas, 1 de Junho de 1993

10. The Organization, Behavior, and Performance of the Informal Food Marketing System,

May 28 1993

11. Food Price Behavior in the Maputo Informal Sector (**forthcoming**)

12. The Pricing and Distribution of Yellow Maize Food Aid n Mozambique: An Analysis of Alternatives, October 18 1993

13. The Maputo Market Study: Synthesis of Research Findings and Policy Implications (**forthcoming**)

14. Liedholm, Carl and Donald Mead, "Small-scale Enterprises: a Profile", in Economic Impact: A Quarterly Review of World Economics, no. 63 (**Reprint**)

14P. Liedholm, Carl and Donald Mead, "Pequenas Empresas: Um Perfil", em Economic Impact: A Quarterly Review of World Economics, no. 63 (**Reprint, translated from English)**

15. Mini-SIMA e Análises Específicas: Um Ensaio Aplicado aos Mercados de Maputo, 15 de Julho de 1993

16. The Evolution of the Rural Economy in Post-War Mozambique: Insights from a Rapid Appraisal in Monapo District of Nampula Province

17. Padrões de Distribuição de Terras no Sector Familiar em Moçambique: A Similaridade entre duas Pesquisas Distintas e as Implicações para a Definição de Políticas, May 1994

18. Who Eats Yellow Maize? Some Preliminary Results from a Survey of Consumer Maize Preferences in Maputo, October 1994

18P. Quem Come Milho Amarelo? Alguns Resultados Preliminares de um Inquérito sobre as Preferencias dos Consumidores de Milho na Cidade de Maputo (**Traduzido do Inglés**), 10 de Novembro de 1994

19. Diagnóstico da Estrutura, Comportamento, e Desempenho dos Mercados Alimentares de Moçambique, 4 de Julho de 1995

20. Inquérito ao Sector Moageiro de Pequena Escala em Moçambique: Observações Metodológicas, 30 de Janeiro de 1995

21. O Sector da Castanha de Caju - Lucros Potenciais Perdidos por Africa? (**Reimpressão)**, Novembro de 1995

22. Smallholder Cash Cropping, Food Cropping and Food Security in Northern Mozambique: Research Methods, March 1996

22P. Culturas de Rendimento, Culturas Alimentares e a Segurança Alimentar do Sector

Familiar no Norte de Moçambique: Métodos do Estudo, Novembro de 1996

23. Plan of Activities for Food Security Research Project, September 1995 through August 1997, 1996

24. Strasberg, Paul, “Smallholder Cash-Cropping, Food-Cropping and Food Security in Northern Mozambique”, Ph.D.Dissertation, Dept. of Agricultural Economics, Michigan State University (**Reprint**), May 1997

25. Smallholder Cash-Cropping, Food-Cropping and Food Security in Northern Mozambique: Summary, Conclusions, and Policy Recommendations, June 1997